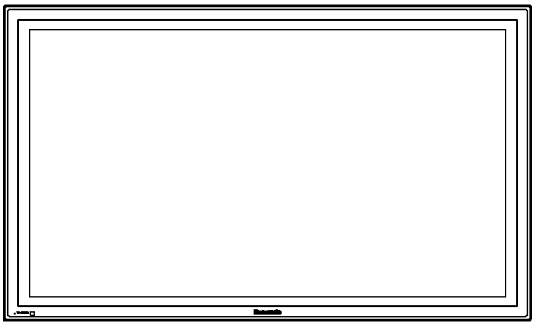
ORDER NO.PCZ0509084C2

Service Manual

High Definition Plasma Display

TH-50PHD8BK / TH-50PHD8BS / TH-50PHD8EK / TH-50PHD8ES

GPH8D Chassis



SPECIFICATIONS

Specifications

ower Source	**220 - 240 V AC, 50/60 Hz**
ower Consumption	
Normal use	**395 W**
Stand-by condition	**Save off 0.8 W, Save on 0.6 W**
Power off condition	**0.3 W**
asma Display panel	**Drive method: AC type 50-inch,**
	16:9 aspect ratio
Contrast Ratio	**3000:1**
creen size	**1,106 mm (W) × 622 mm (H) × 1,269 mm (diagonal)**
(No. of pixels)	**1,049,088 (1,366 (W) × 768 (H) [4,098 × 768 dots]**
perating condition	
Temperature	**32 °F - 104 °F (0 °C - 40 °C)**
Humidity	**20 % - 80 %**
plicable signals	
Color System	**NTSC, PAL, PAL60, SECAM, Modified NTSC**
Scanning format	**525 (480) / 60i•60p, 625 (575) / 50i•50p, 750 (720) / 60p•50p, 1125 (1080) / 60i•50i•24p•25p•30p 24sF .... SMPTE274M, 1250 (1080) / 50i**
PC signals	**VGA, SVGA, XGA,**
	SXGA, UXGA ..... (compressed)
	Horizontal scanning frequency 15 - 110 kHz
	Vertical scanning frequency 48 - 120 Hz
onnection terminals	

AV	VIDEO IN / OUT (BNC)	1.0 Vp-p (75-ohm or high impedance)
	S VIDEO IN (MINI DIN 4PIN)	Y: 1 Vp-p (75-ohm), C: 0.286 Vp-p (75-ohm)
	AUDIO IN (RCA PIN JACK × 2)	0.5 Vrms (high impedance)
PC	(HIGH-DENSITY Mini-D-SUB 15PIN)	R,G,B / 0.7 Vp-p (75-ohm)
		HD, VD / 1.0 - 5.0 Vp-p (high impedance)
	AUDIO IN (M3 JACK)	0.5 Vrms (high impedance)
SERIAL	EXTERNAL CONTROL TERMINAL (D-SUB 9PIN)	RS-232C COMPATIBLE
SPEAKERS (6 Ω)	16 W [8 W + 8 W] (10 % THD)	
cessories Supplied		
Remote Control Transmitter	EUR7636070R or EUR7636090R	
Batteries	2 × R6 Size	
Fixing bands	(TMME203 or TMME187) × 2	
mensions (W × H × D)	1,210 mm × 724 mm × 95 mm (exclusive of protruding portion)	
ass (weight)		
main unit only	approx. 43.0 kg net	
with speakers	approx. 47.0 kg	

otes:

esign and specifications are subject to change without notice. Mass and dimensions shown are approximate.

his equipment complies with the EMC standards listed below. EN55022, EN55024, EN61000-3-2, EN61000-3-3.

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic®

1. Applicable signals

VIDEO input

	Signal name	Horizontal frequency(kHz)	Vertical frequency(Hz)
1	NTSC	15.73	59.94
2	PAL	15.63	50.00
3	PAL60	15.73	59.94
4	SECAM	15.63	50.00
5	Modified NTSC	15.73	59.94

Applicable input signals for Component / Mini D-sub 15P (Component) / RGB / Mini D-sub 15P (RGB) (* Mark)

	Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)	Component / Mini D-sub 15P (Component)	RGB / Mini D-sub 15P (RGB)
1	525 (480) / 60i	15.73	59.94	*	*
2	525 (480) / 60p	31.47	59.94	*	*1
3	625 (575) / 50i	15.63	50.00	*	*
4	625 (575) / 50p	31.25	50.00	*	*
5	750 (720) / 60p	45.00	60.00	*	*
6	750 (720) / 50p	37.50	50.00	*	*
7	1,125 (1,080) / 60i	33.75	60.00	*	*
8	1,125 (1,080) / 50i	28.13	50.00	*	*
9	1,125 (1,080) / 24p	27.00	47.92	*	*
10	1,125 (1,080) / 24sF	33.75	30.00	*	*
11	1,125 (1,080) / 25p	28.13	25.00	*	*
12	1,125 (1,080) / 30p	27.00	24.00	*	*
13	1,250 (1,080) / 50i	31.25	50.00	*	*
14	640 × 400 @70 Hz	31.46	70.07		*
15	640 × 480 @60 Hz	31.47	59.94		*2
16	640 × 480 @72 Hz	37.86	72.81		*
17	640 × 480 @75 Hz	37.50	75.00		*
18	640 × 480 @85 Hz	43.27	85.01		*
19	852 × 480 @60 Hz	31.47	59.94		*2
20	800 × 600 @56 Hz	35.16	56.25		*
21	800 × 600 @60 Hz	37.88	60.32		*
22	800 × 600 @72 Hz	48.08	72.19		*
23	800 × 600 @75 Hz	46.88	75.00		*
24	800 × 600 @85 Hz	53.67	85.06		*
25	1,024 × 768 @60 Hz	48.36	60.00		*
26	1,024 × 768 @70 Hz	56.48	70.07		*
27	1,024 × 768 @75 Hz	60.02	75.03		*
28	1,024 × 768 @85 Hz	68.68	85.00		*
29	1,152 × 864 @75 Hz	67.50	75.00		*
30	1,280 × 960 @60 Hz	60.00	60.00		*
31	1,280 × 960 @85 Hz	85.94	85.00		*
32	1,280 × 1,024 @60 Hz	63.98	60.02		*
33	1,280 × 1,024 @75 Hz	79.98	75.03		*
34	1,280 × 1,024 @85 Hz	91.15	85.02		*
35	1,600 × 1,200 @60 Hz	75.00	60.00		*
36	1,600 × 1,200 @65 Hz	81.25	65.00		*
37	1,066 × 600 @60 Hz	37.88	60.32		*
38	1,366 × 768 @60 Hz	48.36	60.00		*
39	Macintosh13” (640 × 480)	35.00	66.67		*
40	Macintosh16” (832 × 624)	49.72	74.54		*
41	Macintosh21” (1,152 × 870)	68.68	75.06		*

*1: When selected the RGB format and 525p signal input to the Mini D-sub 15P terminal, it is recognized as VGA 60Hz signal.

*2: When inputted VGA 60Hz format signal from the other than Mini D-sub 15P terminal, it is recognized as 525p signal.

Note: Signals without above specification may not be displayed properly.

2. Safety Precautions

2.1. General Guidelines

1. **When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.**
2. **After servicing, see to it that all the protective devices such as**

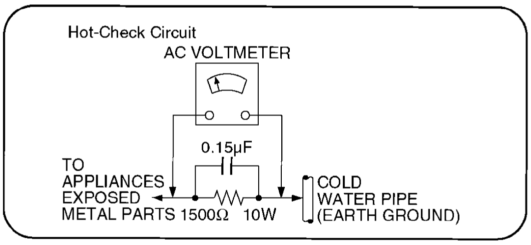
insulation barriers, insulation papers shields are properly installed.

3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

2.1.1. Leakage Current Cold Check

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1M Ω and 5.2M Ω . / When the exposed metal does not have a return path to the chassis, the reading must be∞.

Figure 1


Hot-Check Circuit
AC VOLTMETER
0.15μF
TO APPLIANCES EXPOSED METAL PARTS
1500Ω
10W
COLD WATER PIPE (EARTH GROUND)

2.1.2. Leakage Current Hot Check (See Figure 1 .)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5k Ω , 10 watts resistor, in parallel with a 0.15 μ F capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1 .
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A

leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

3. Prevention of Electro Static Discharge (ESD) to Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistorsand semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder Remove device. Some solder Remove devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the

leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

Caution

Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

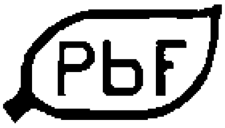
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise hamless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are imporant for safety.
These parts are marked by ⚠ in the schematic diagrams, Exploded Views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

4. About lead free solder (PbF)

Note: Lead is listed as (Pb) in the periodic table of elements.
In the information below, Pb will refer to Lead solder, and PbF will refer to Lead Free Solder.
The Lead Free Solder used in our manufacturing process and discussed below is (Sn+Ag+Cu).
That is Tin (Sn), Silver (Ag) and Copper (Cu) although other types are available.
This model uses Pb Free solder in it's manufacture due to environmental conservation issues.
For service and repair work, we'd suggest the use of Pb free solder as well, although Pb solder may be used.
PCBs manufactured using lead free solder will have the PbF within a leaf Symbol

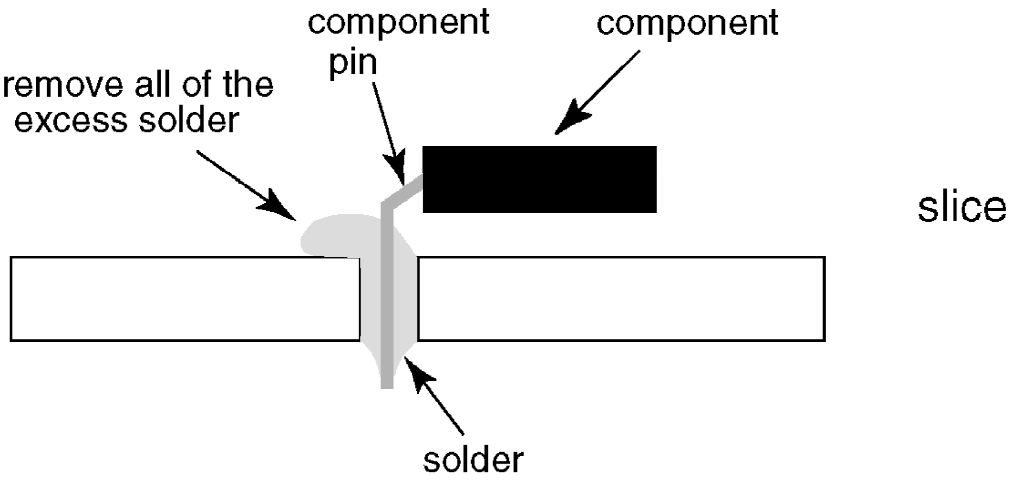


stamped on the back of PCB.

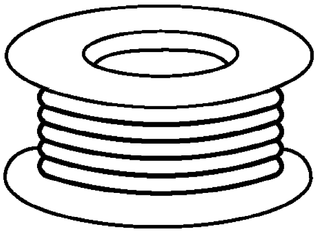
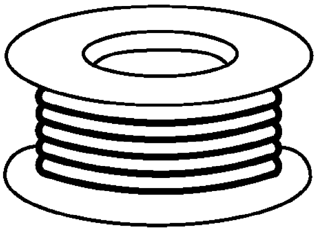
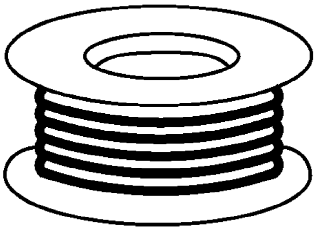
Caution

- Pb free solder has a higher melting point than standard solder. Typically the melting point is 50 ~ 70 °F (30~40 °C) higher. Please use a high temperature soldering iron and set it to 700 ± 20 °F (370 ± 10 °C).
- Pb free solder will tend to splash when heated too high (about 1100 °F or 600 °C).
  If you must use Pb solder, please completely remove all of the Pb free solder on the pins or solder area before applying Pb solder. If this is not practical, be sure to heat the Pb free solder until it melts, before applying Pb solder.

- **After applying PbF solder to double layered boards, please check the component side for excess solder which may flow onto the opposite side. (see figure below)**


component pin
component
remove all of the excess solder
slice
solder

Suggested Pb free solder
There are several kinds of Pb free solder available for purchase. This product uses Sn+Ag+Cu (tin, silver, copper) solder. However, Sn+Cu (tin, copper), Sn+Zn+Bi (tin, zinc, bismuth) solder can also be used.

0.3mm X 100g	0.6mm X 100g	1.0mm X 100g
		

5. PCB Structure sheet of GPH8D chassis

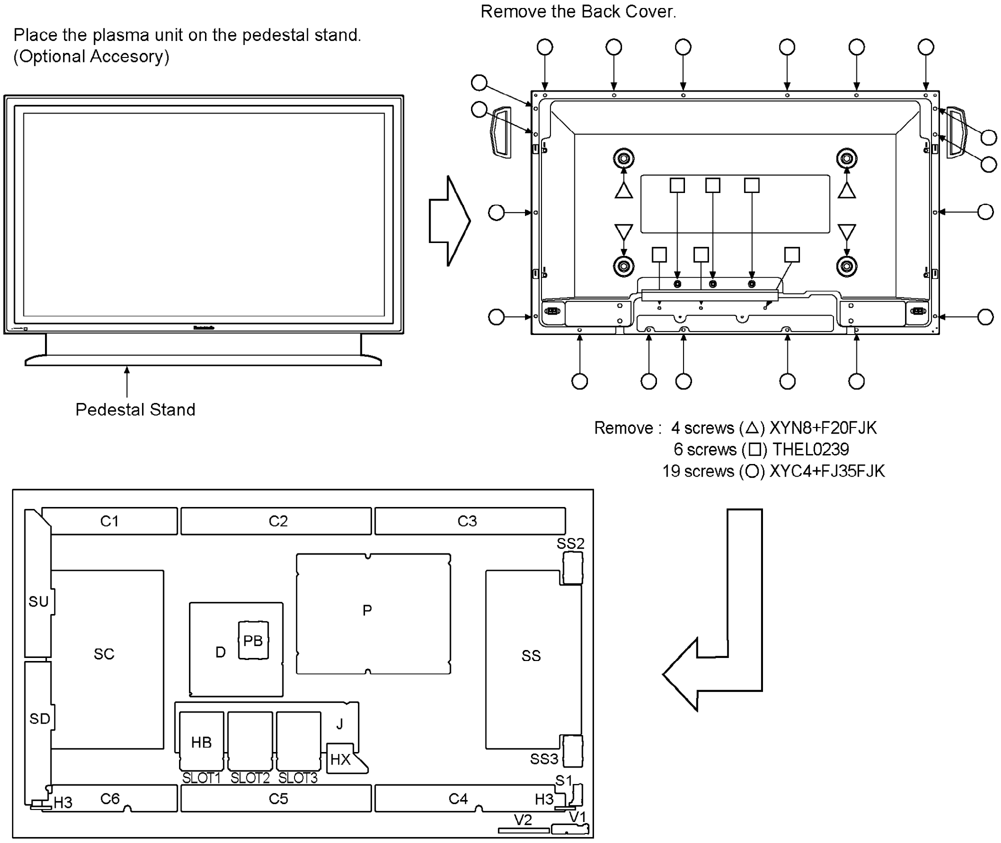
Board Name	Function	Remarks
D	Digital Signal Processor, Format Coverter, Plasma Ai Processor	✻1
J	Slot Interface (Audio/Video/Sync input Switch), SYNC processor, Audio processor, Speaker out amplifier, DC-DC converter	✻1
SS	Sustain drive	✻1
SC	Scan drive	✻1
SU	Scan out (Upper)	✻1
SD	Scan out (Lower)	✻1
C1	Data Drive (Upper Right)	
C2	Data Drive (Upper Center)	
C3	Data Drive (Upper Left)	
C4	Data Drive (Lower Left)	
C5	Data Drive (Lower Center)	
C6	Data Drive (Lower Right)	
H3	Speaker terminal	
S1	Power switch	
SS2	Sustain out (Upper)	
SS3	Sustain out (Lower)	
V1	LED (stand-by / Power on) & Remote receiver	✻1
V2	Key switch	✻1
PB	Fan control	✻1
P	Line filter, Power supply	✻1
HX	PC / RS-232C	
HB	BNC Composite Video	

Remarks

✻1: Recommend PCB's for initial service for GPH8D chassis.

6. Service Hint

[How to set the plasma unit for servicing]


Pedestal Stand
C1
C2
C3
SS2
SU
SC
PB
D
P
SS
SD
HB
J
HX
SS3
SLOT1
SLOT2
SLOT3
S1
H3
C6
C5
C4
H3
V2
V1

Place the plasma unit on the pedestal stand.
(Optional Accesory)

Remove the Back Cover.

Remove : 4 screws (△) XYN8+F20FJK
6 screws (□) THEL0239
19 screws (○) XYC4+FJ35FJK

P.C.Boards Location

Note:
Extension cable kit for Slot Board is supplied as service fixtures and tools.
(Part No. TZSC0704)

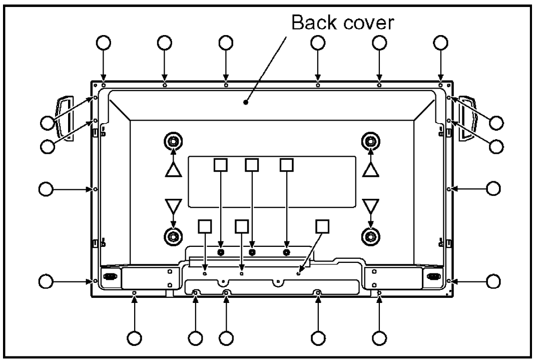
7. Disassembly

- To Remove P.C.B. , wait for 1 minute after power was off for discharge from electrolysis capacitors.

- ⬆ and ⇧ marks indicate screw positions.

7.1. Removal of the Back Cover

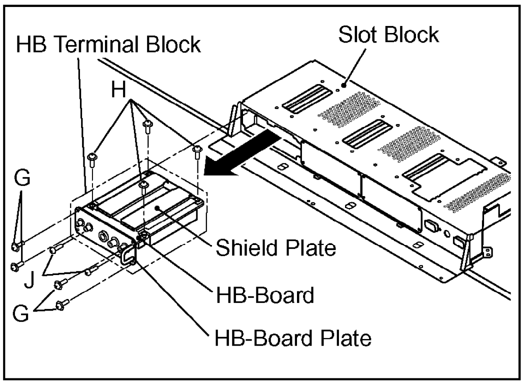
1. Remove the screws (×19 ○, ×6 □, ×4 △) and then remove the Back Cover.



7.2. Removal of the HB-Board

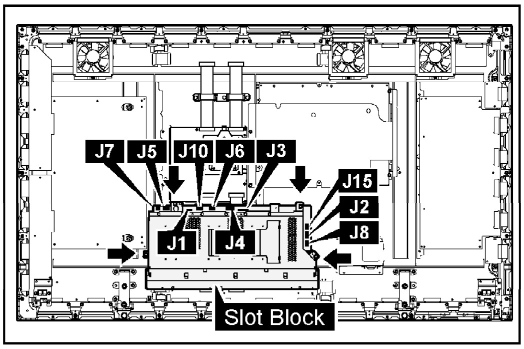
- Removal of the HB-Board

1. Remove the 4 screws (G) of the HB Terminal Block and then remove the HB Terminal Block.
2. Remove the 4 screws (H) of the Shield Plate.
3. Remove the 2 screws (J) of the HB-Board Plate and then remove the HB-Board.


HB Terminal Block
Slot Block
H
G
J
G
Shield Plate
HB-Board
HB-Board Plate

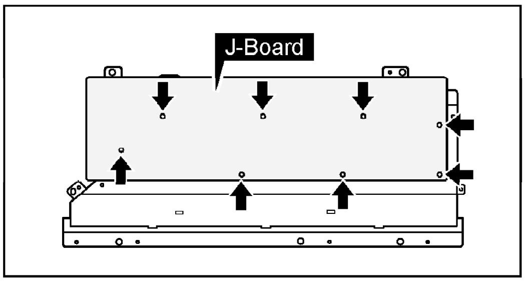
7.3. Removal of the Slot Block

1. Disconnect the couplers(J1, J2, J3, J4, J5, J6, J7, J8, J10, J15).
2. Remove the 4 screws and then remove the Slot Block.


J7
J5
J10
J6
J3
J15
J2
J8
J1
J4
Slot Block

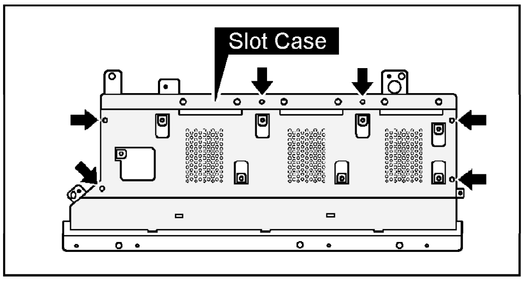
7.4. Removal of the J-Board

1. Remove the HA Terminal Block and the HB Terminal Block.
   (Reference to remove of the HA-Board and remove of the HB-Board)
2. Remove the Slot Block.
   (Reference to remove of the Slot Block)
3. Remove the 8 screws and then remove the J-Board.

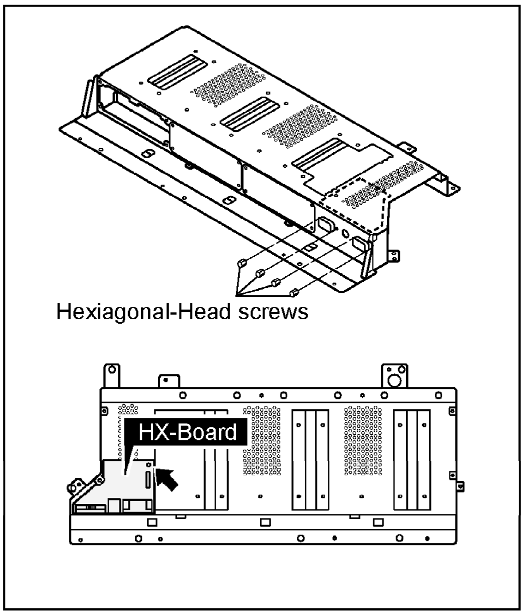


7.5. Removal of the HX-Board

1. Remove the HA Terminal Block and the HB Terminal Block.
   (Reference to remove of the HA-Board and remove of the HB-Board)
2. Remove the Slot Block.
   (Reference to remove of the Slot Block)
3. Remove the J-Board.
   (Reference to remove of the J-Board)
4. Remove the 6 screws and then remove the Slot Case.



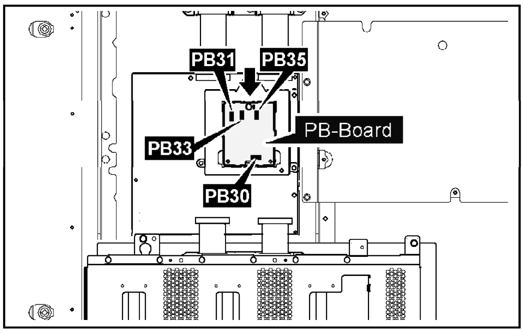
5. Remove the 4 Hexagonal-Head screws and the screw of the HX-Board and then remove the HX-Board.


Hexiagonal-Head screws
HX-Board

7.6. Removal of the PB-Board

1. Disconnect the couplers(PB30, PB31, PB33, PB35).

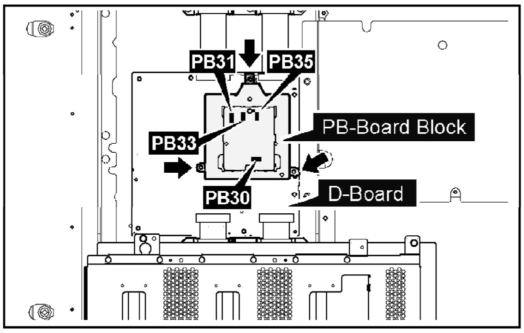
2. Remove the screw and then remove the PB-Board.


PB31
PB35
PB33
PB-Board
PB30

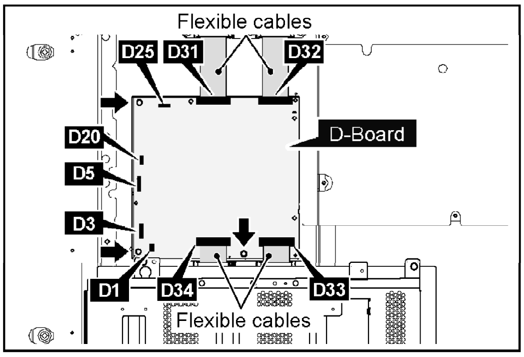
7.7. Removal of the D-Board

1. Disconnect the couplers(PB30, PB31, PB33, PB35).

2. Remove the 3 screws and then remove the PB-Board Block.

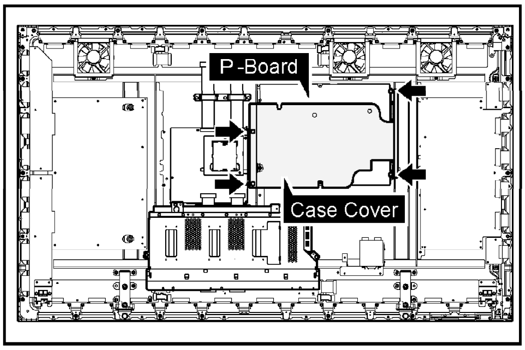

PB31
PB35
PB-Board Block
PB33
PB30
D-Board

3. Disconnect the couplers(D1, D3, D5, D20, D25).
4. Disconnect the flexible cables(D31, D32, D33, D34).
5. Remove the 3 screws and then remove the D-Board.

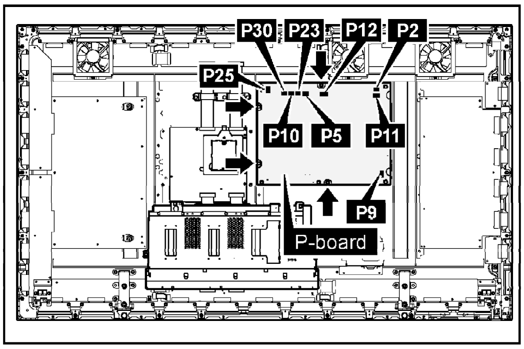

Flexible cables
D25
D31
D32
D20
D-Board
D5
D3
D1
D34
D33
Flexible cables

7.8. Removal of the P-Board

1. Remove the 4 screws and then remove the Case Cover.

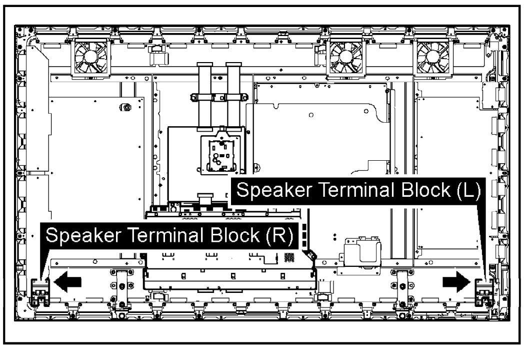

P -Board
Case Cover

2. Disconnect the couplers(P2, P5, P9, P10, P11, P12, P23, P25, P30).
3. Remove the 4 screws and then remove the P-Board.

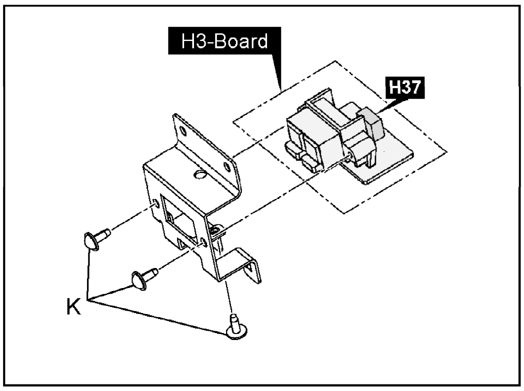

P30
P23
P12
P2
P25
P10
P5
P11
P9
P-board

7.9. Removal of the H3-Board

1. Remove the each 1 screw and then remove the Speaker Terminal Blocks(L, R).

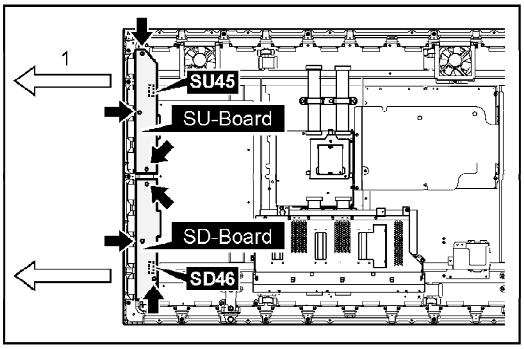

Speaker Terminal Block (L)
Speaker Terminal Block (R)

2. Disconnect the coupler (H37).
3. Remove the 3 screws(D) and then remove the H3-Board.


H3-Board
H37
K

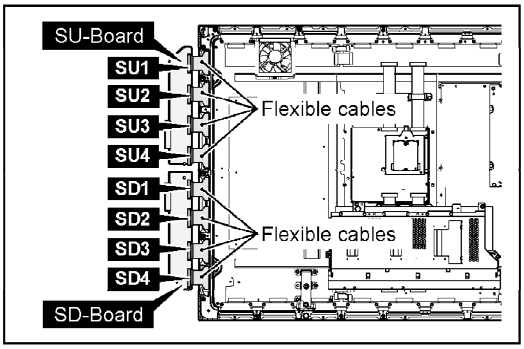
7.10. Removal of the SU-Board and the SD-Board

1. Remove the Speaker Terminal Block(R).
   (Reference to remove of the Speaker Terminal Block(R)).
2. Disconnect the couplers(SU45, SD46).
3. Remove the each 3 screws.
4. Slide the SU-Board and the SD-Board to the left(arrow1).


1
SU45
SU-Board
SD-Board
SD46

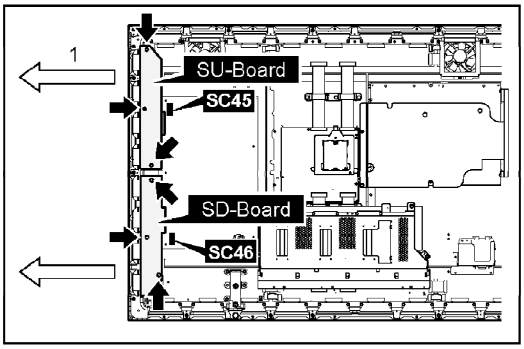
5. Disconnect the flexible cables(SU1, SU2, SU3, SU4) and then remove the SU-Board.

6. Disconnect the flexible cables(SD1, SD2, SD3, SD4) and then remove the SD-Board.

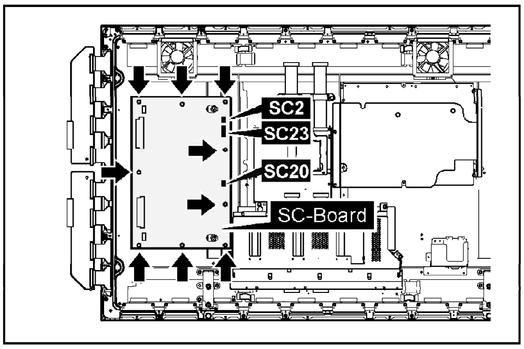

SU-Board
SU1
SU2
SU3
SU4
Flexible cables
SD1
SD2
SD3
SD4
Flexible cables
SD-Board

7.11. Removal of the SC-Board

1. Remove the Speaker Terminal Block(R).
   (Reference to remove of the Speaker Terminal Block(R)).
2. Disconnect the couplers(SC45, SC46).
3. Remove the each 3 screws.
4. Slide the SU-Board and the SD-Board to the left(arrow1).
   (Reference to remove of the SU-Board and the SD-Board)

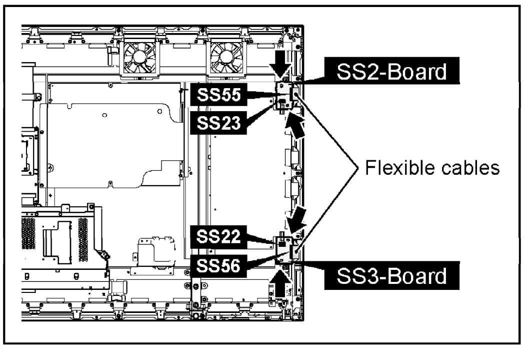

1
SU-Board
SC45
SD-Board
SC46

5. Disconnect the couplers(SC2, SC20, SC23).
6. Remove the 9 screws and then remove the SC-Board.


SC2
SC23
SC20
SC-Board

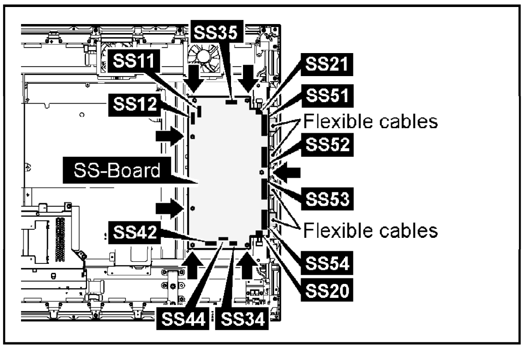
7.12. Removal of the SS2-Board and the SS3-Board

1. Disconnect the couplers(SS22, SS23).
2. Disconnect the flexible cables(SS55, SS56).
3. Remove the each 2 screws and then remove the SS2-Board and the SS3-Board.


SS2-Board
SS55
SS23
Flexible cables
SS22
SS56
SS3-Board

7.13. Removal of the SS-Board

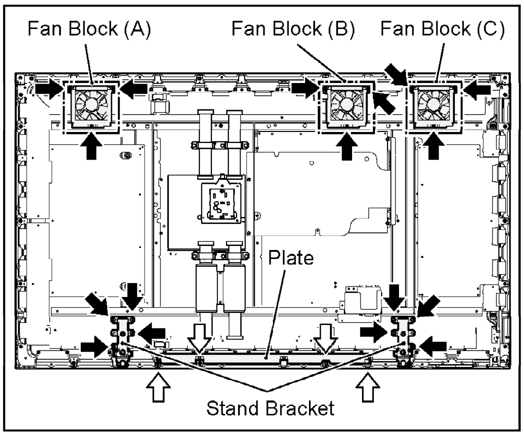
1. Disconnect the couplers(SS11, SS12, SS20, SS21, SS34, SS35, SS42, SS44).
2. Disconnect the flexible cables(SS51, SS52, SS53, SS54).
3. Remove the 7 screws and then remove the SS-Board.


SS35
SS11
SS21
SS51
SS12
Flexible cables
SS52
SS-Board
SS53
SS42
Flexible cables
SS54
SS20
SS44
SS34

7.14. Removal of the C1, C2, C3, C4, C5 and the C6-Board

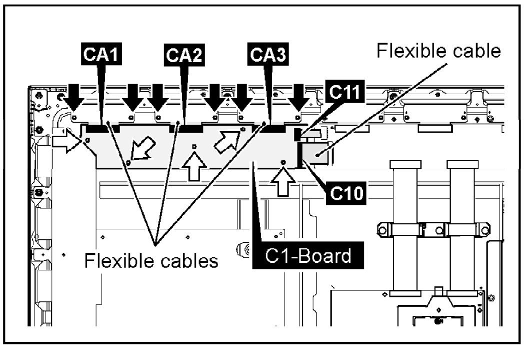
1. Remove the Slot Block.
   (Reference to remove of the Slot Block).
2. Remove the Speaker Terminal Block(L, R).
   (Refernce to remove of the Speaker Terminal Block(L, R).
3. Remove the each 4 screws and then remove the Stand Blocks(L, R).

4. **Remove the each 3 screws and then remove the 3 Fan Blocks.**
5. **Remove the 4 screws and then remove the Plate.**


Fan Block (A)
Fan Block (B)
Fan Block (C)
Plate
Stand Bracket

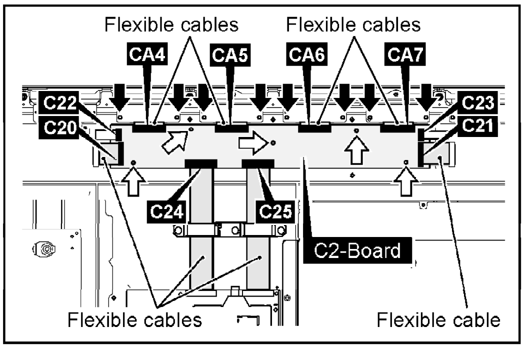
7.14.1. Removal of the C1-Board

1. **Disconnect the flexible cable(C10).**
2. **Disconnect the coupler(C11).**
3. **Remove the 6 screws and then disconnect the flexible cables(CA1, CA2, CA3).**
4. **Remove the 5 screws and then remove the C1-Board.**


CA1
CA2
CA3
Flexible cable
C11
C10
Flexible cables
C1-Board

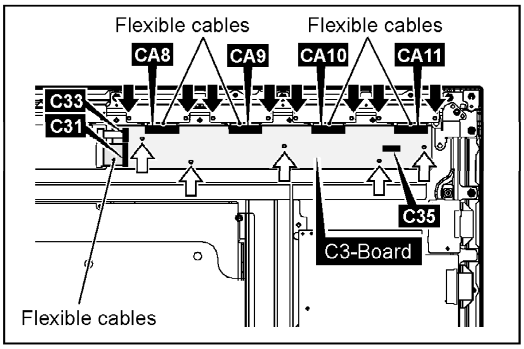
7.14.2. Removal of the C2-Board

1. **Disconnect the flexible cables(C20, C21, C24, C25).**
2. **Disconnect the couplers(C22, C23).**
3. **Remove the 8 screws and then disconnect the flexible cables(CA4, CA5, CA6, CA7).**
4. **Remove the 5 screws and then remove the C2-Board.**


Flexible cables
Flexible cables
CA4
CA5
CA6
CA7
C22
C20
C23
C21
C24
C25
C2-Board
Flexible cables
Flexible cable

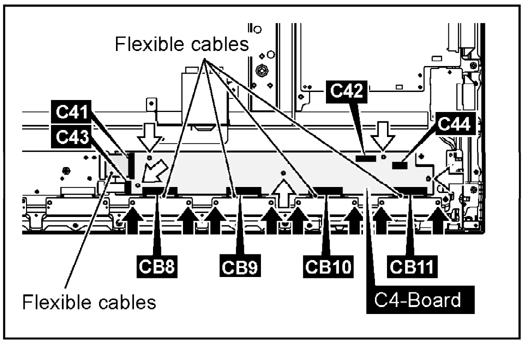
7.14.3. Removal of the C3-Board

1. **Disconnect the flexible cable(C31).**
2. **Disconnect the couplers(C33, C35).**
3. **Remove the 8 screws and then disconnect the flexible cables(CA8, CA9, CA10, CA11).**
4. **Remove the 5 screws and then remove the C3-Board.**


Flexible cables
Flexible cables
CA8
CA9
CA10
CA11
C33
C31
C35
C3-Board
Flexible cables

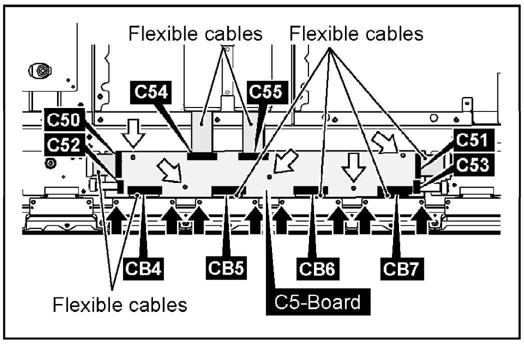
7.14.4. Removal of the C4-Board

1. **Disconnect the flexible cable(C41).**
2. **Disconnect the couplers(C42, C43, C44).**
3. **Remove the 8 screws and then disconnect the flexible cables(CB8, CB9, CB10,CB11).**
4. **Remove the 5 screws and then remove the C4-Board.**


Flexible cables
C41
C43
C42
C44
CB8
CB9
CB10
CB11
Flexible cables
C4-Board

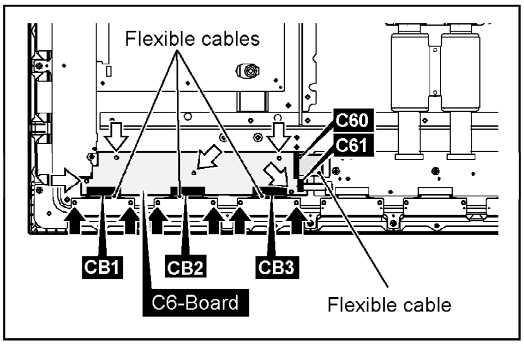
7.14.5. Removal of the C5-Board

1. Disconnect the flexible cables (C50, C51, C54, C55).
2. Disconnect the couplers(C52,C53).
3. Remove the 8 screws and then disconnect the flexible cables(CB4, CB5, CB6, CB7).
4. Remove the 5 screws and then remove the C5-Board.


Flexible cables
Flexible cables
C54
C55
C50
C52
C51
C53
CB4
CB5
CB6
CB7
Flexible cables
C5-Board

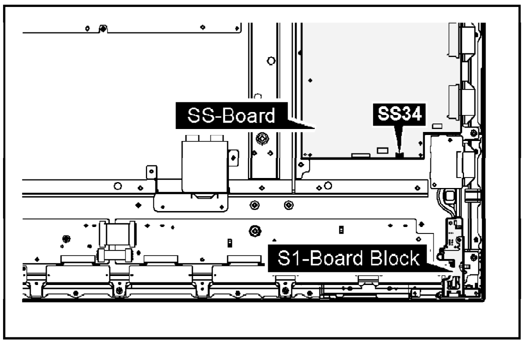
7.14.6. Removal of the C6-Board

1. Disconnect the flexible cable(C60).
2. Disconnect the coupler(C61).
3. Remove the 6 screws and then disconnect the flexible cables(CB1, CB2, CB3).
4. Remove the 5 screws and then remove the C6-Board.


Flexible cables
C60
C61
CB1
CB2
CB3
C6-Board
Flexible cable

7.15. Removal of the S1-Board

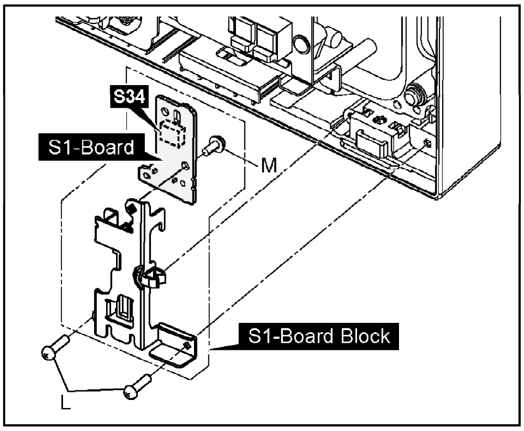
1. Disconnect the coupler (SS34).


SS-Board
SS34
S1-Board Block

2. Remove the 2 screws(L) and then remove the S1-Board Block.

3. Disconnect the coupler(S34).

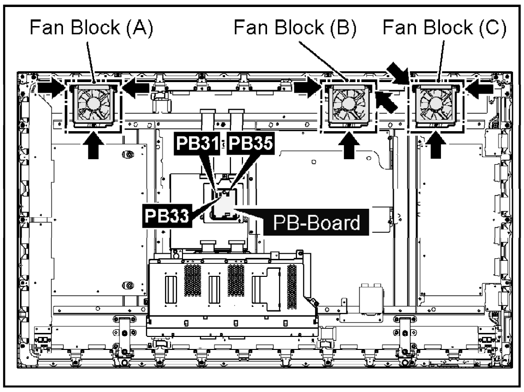
4. Remove the 1 screw(M) and then remove the S1-Board.


S34
S1-Board
M
S1-Board Block
L

7.16. Removal of the Fan

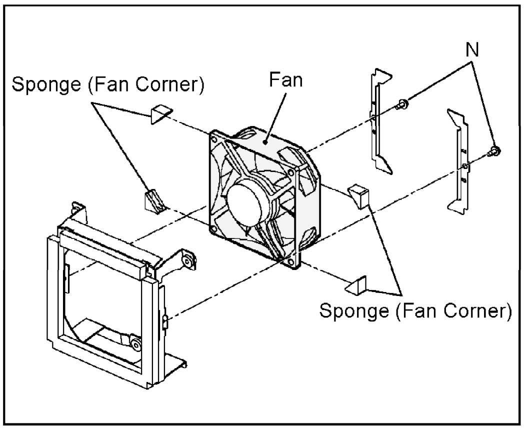
1. Disconnect the couplers(PB31, PB33, PB35).

2. Remove the each 3 screws and then remove the Fan Blocks(A, B, C).


Fan Block (A)
Fan Block (B)
Fan Block (C)
PB31
PB35
PB33
PB-Board

3. Remove the each 2 screws(N) and then remove the 3 Fans.

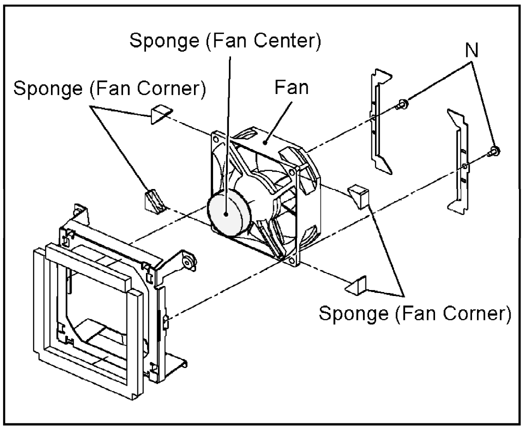
4. Remove the each 4 sponge(Fan Corner) and then remove the 3 Fans.


N
Sponge (Fan Corner)
Fan
Sponge (Fan Corner)

5. Reassemble the Fans in reverse order (4-1) and then stick the Sponge(Fan center) on the central part of the Fan.

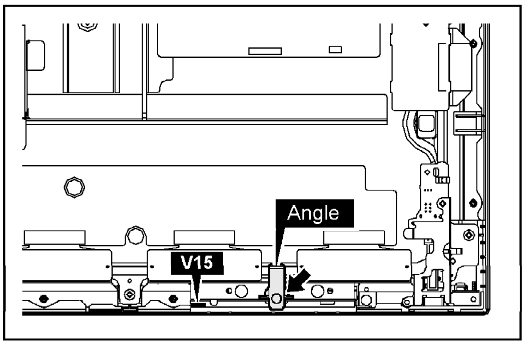
Note:

The Sponge(Fan center) is unsuitable to reuse.
Please use a new one at the time of Fan remove.

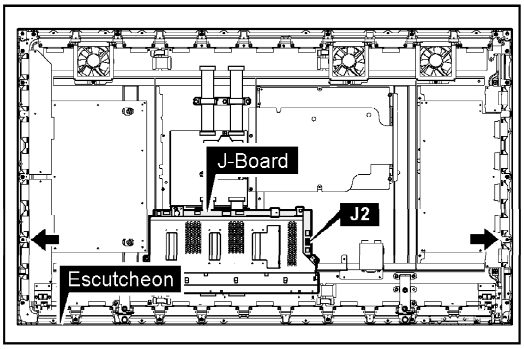

Sponge (Fan Center)
N
Sponge (Fan Corner)
Fan
Sponge (Fan Corner)

7.17. Removal of the Escutcheon

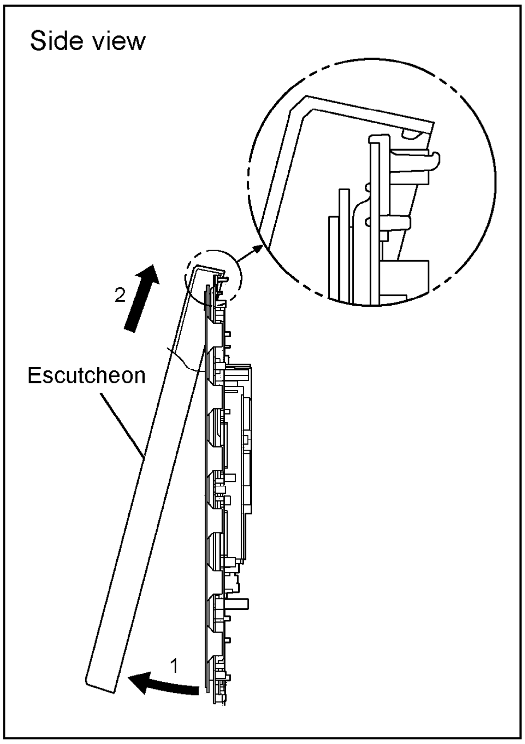
1. **Remove the S1-Board Block.**
   (Reference to remove of the S1-Board Block).
2. **Disconnect the couplers(V15).**
3. **Remove the screw and then remove the Angle.**



4. **Remove the coupler(J2) and then remove the 2 screws.**

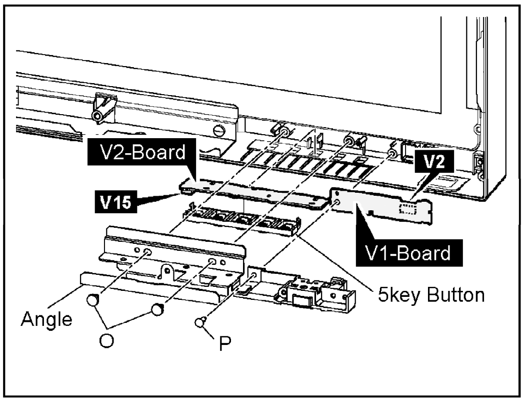


5. **Pull the bottom of the Escutcheon forward. (arrow1)**
6. **Lift up the Escutcheon to remove.(arrow2)**


Side view
2
Escutcheon
1

7.18. Removal of the V1-Board and V2-Board

1. Operate procedure 1 to 4 of the Escutcheon remove.
2. Remove the 2 screws(N) and then remove the Angle.
3. Remove the screw(O).
4. Remove the 5key Button.
5. disconnect the coupler(V15) and then remove the V2-Board.
6. Disconnect the coupler(V2) and then remove the V1-Board.

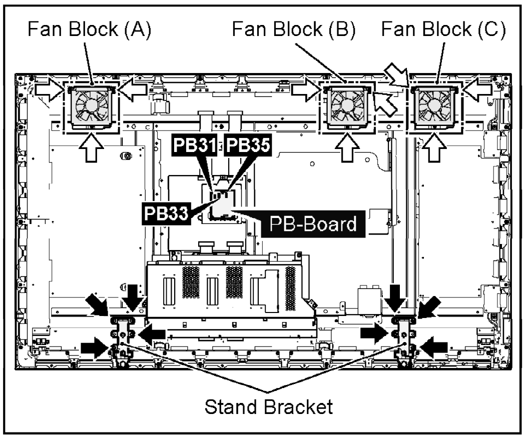

V2-Board
V2
V15
V1-Board
5key Button
Angle
O
P

7.19. Removal of the Plasma Panel

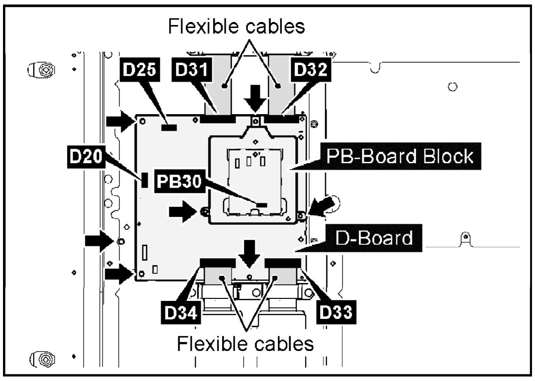
1. Remove the each 4 screws and then remove the Stand

Brackets(L, R).

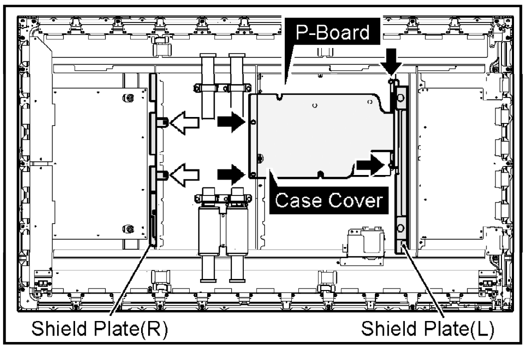
2. **Disconnect the couplers(PB31, PB33, PB35).**
3. **Remove the each 3 screws and then remove the Fan Blocks(A, B, C).**


Fan Block (A)
Fan Block (B)
Fan Block (C)
PB31
PB35
PB33
PB-Board
Stand Bracket

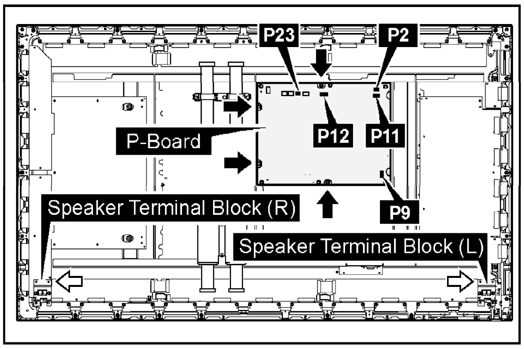
4. **Remove the Slot Block.**
   (Reference to remove of the Slot Block).
5. **Disconnect the couplers(D20, D25, PB30).**
6. **Disconnect the flexible cables(D31, D32, D33, D34).**
7. **Remove the 7 screws and then remove the PB-Board Block and D-Board.**


Flexible cables
D25
D31
D32
D20
PB30
PB-Board Block
D-Board
D34
D33
Flexible cables

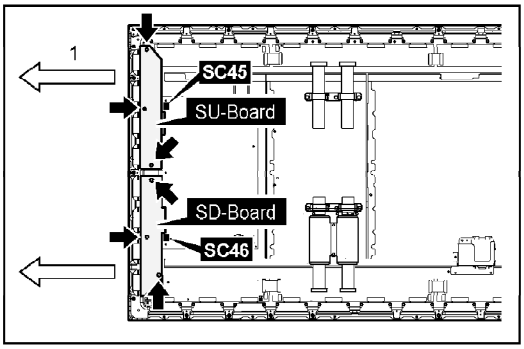
8. **Remove the 2 screws and then remove the Shield Plate(R).**
9. **Remove the Shield Plate(L).**
10. **Remove the 4 screws and then remove the Case Cover.**


P-Board
Case Cover
Shield Plate(R)
Shield Plate(L)

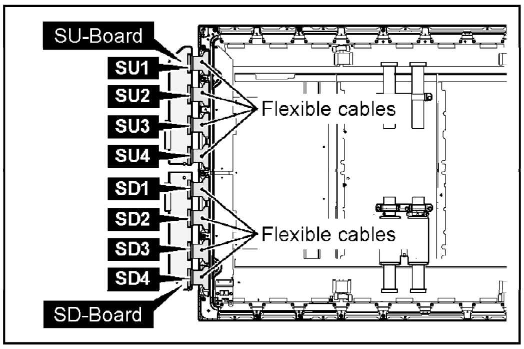
11. Disconnect the couplers(P2, P9, P11, P12, P23).
12. Remove the 4 screws and then remove the P-Board.
13. Remove the each screw and then remove the Speaker Terminal Block(L, R).


P23
P2
P-Board
P12
P11
Speaker Terminal Block (R)
P9
Speaker Terminal Block (L)

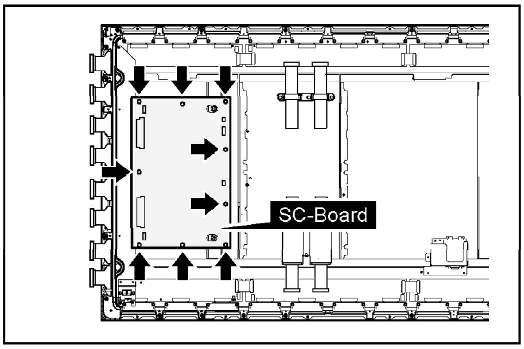
14. Disconnect the couplers(SC45, SC46).
15. Remove the each 3 screws and then slide the SU-Board and the SD-Board to the left(arrow1).


1
SC45
SU-Board
SD-Board
SC46

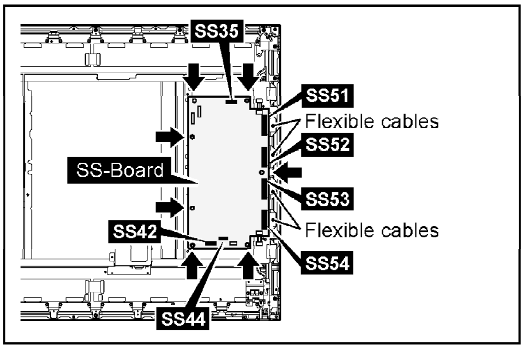
16. Disconnect the flexible cables (SU1, SU2, SU3, SU4, SD1, SD2, SD3, SD4) and then remove the SU-Board and the SD-Board.


SU-Board
SU1
SU2
SU3
SU4
Flexible cables
SD1
SD2
SD3
SD4
Flexible cables
SD-Board

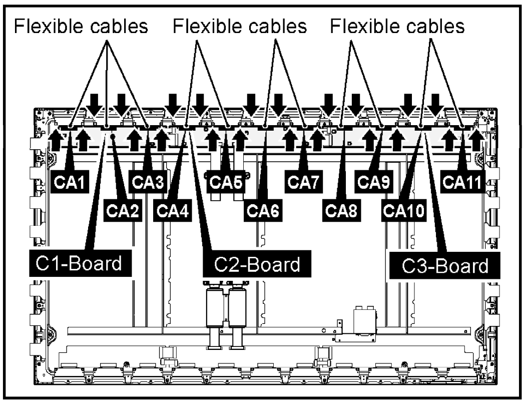
17. Remove the 9 screws and then remove the SC-Board.



18. Remove the SS2-Board and the SS3-Board.
    (Reference to remove of the SS2-Board and the SS3-Board).
19. Disconnect the couplers(SS35, SS42, SS44).
20. Disconnect the flexible cables(SS51, SS52, SS53, SS54).
21. Remove the 7 screws and then remove the SS-Board.


SS35
SS51
Flexible cables
SS52
SS-Board
SS53
Flexible cables
SS42
SS54
SS44

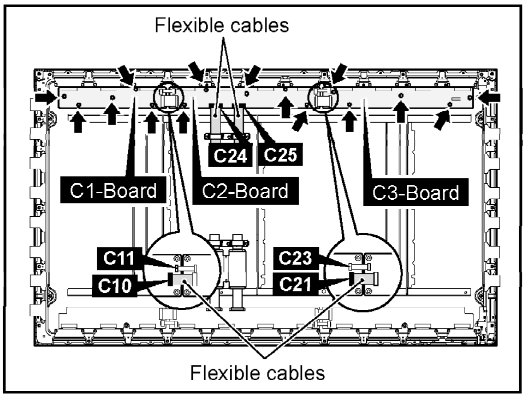
22. Remove the 22 screws.
23. Disconnect the flexible cables(CA1, CA2, CA3, CA4, CA5, CA6, CA7, CA8, CA9, CA10, CA11).


Flexible cables
Flexible cables
Flexible cables
CA1
CA2
CA3
CA4
CA5
CA6
CA7
CA8
CA9
CA10
CA11
C1-Board
C2-Board
C3-Board

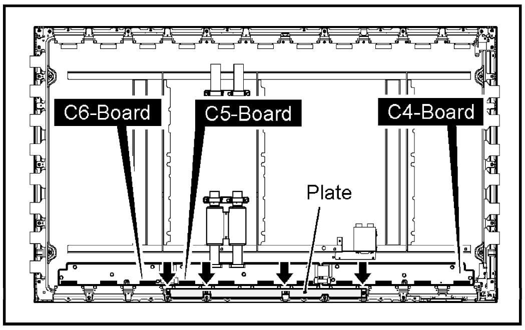
24. Disconnect the couplers(C11, C23).

25. Disconnect the flexible cables(C10, C21, C24, C25).

26. Remove the each 5 screws and then remove the C1-Board, the C2 -Board and the C3-Board.

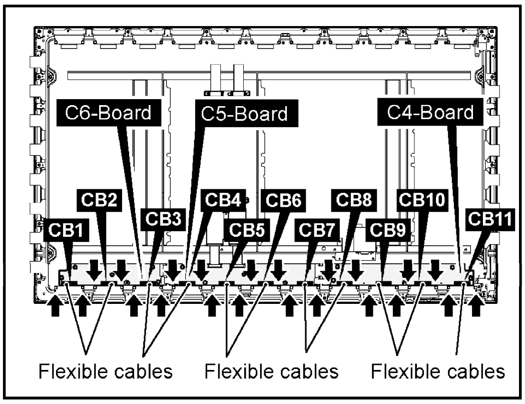

Flexible cables
C24
C25
C1-Board
C2-Board
C3-Board
C11
C10
C23
C21
Flexible cables

27. Remove the 4 screws and then remove the Plate.


C6-Board
C5-Board
C4-Board
Plate

28. Remove the 22 screws.

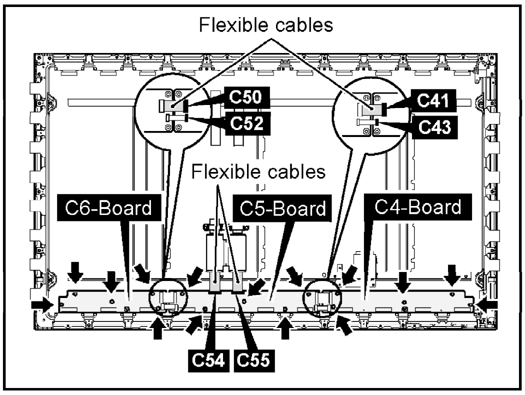
29. Disconnect the flexible cables(CB1, CB2, CB3, CB4, CB5, CB6, CB7, CB8, CB9, CB10, CB11).


C6-Board
C5-Board
C4-Board
CB1
CB2
CB3
CB4
CB5
CB6
CB7
CB8
CB9
CB10
CB11
Flexible cables
Flexible cables
Flexible cables

30. Disconnect the couplers(C43, C52).

31. Disconnect the flexible cables(C41, C50, C54, C55).

32. Remove the each 5 screws and then remove the C4-Board, the C5-Board and the C6-Board.

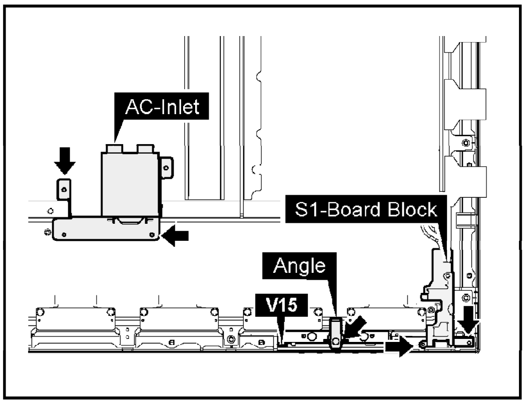

Flexible cables
C50
C52
C41
C43
Flexible cables
C6-Board
C5-Board
C4-Board
C54
C55

33. Remove the 2 screws and then remove the S1-Board.

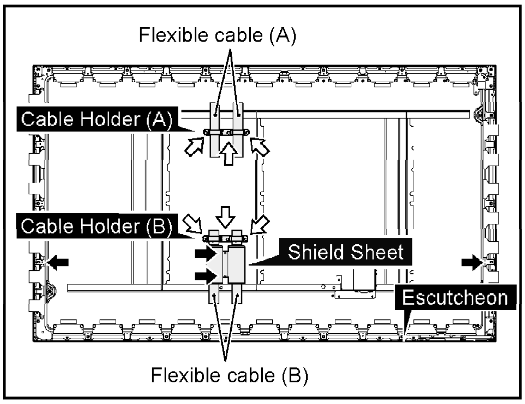
34. Remove the 2 screws and then remove the AC-Inlet.

35. Remove the 1 screw and then remove the Angle.

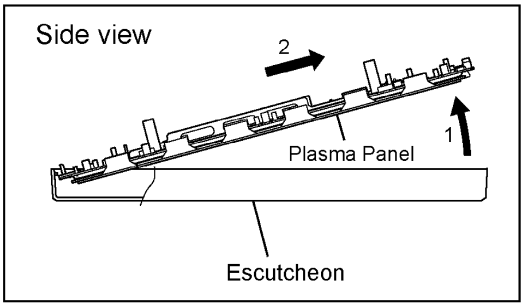
36. Disconnect the coupler(V15).


AC-Inlet
S1-Board Block
Angle
V15

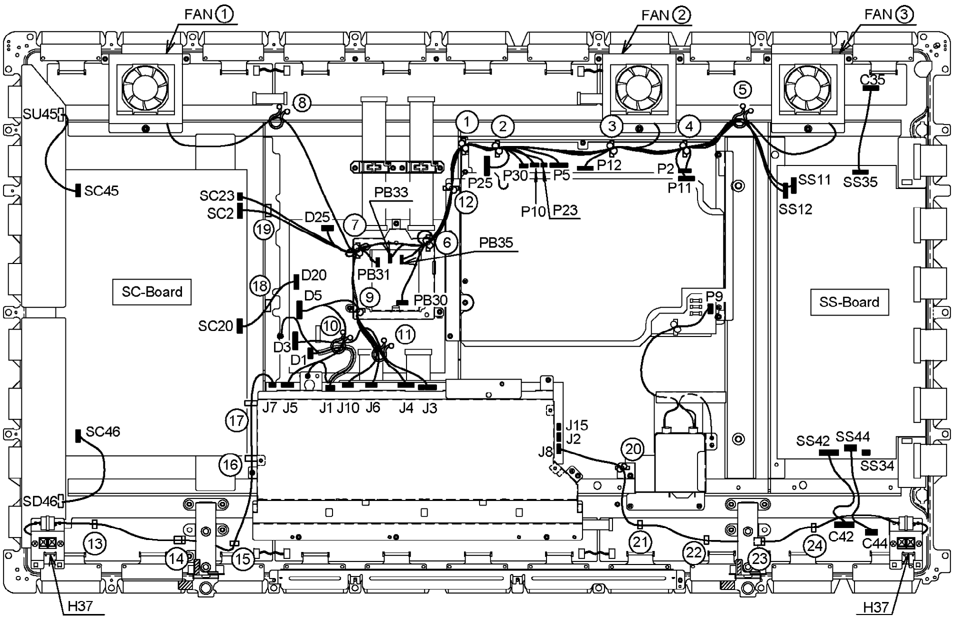
37. **Remove the each 3 screws of the Fixed Sheets(A, B) and then remove the Fixed Sheets(A, B).**
38. **Remove the 2 screws and then remove the Shield Sheet.**
39. **Remove the each 3 screws and then remove the Cable Holders(A, B) and the Flexible cables(A, B).**
40. **Remove the 2 screws of the Escutcheon.**


Flexible cable (A)
Cable Holder (A)
Cable Holder (B)
Shield Sheet
Escutcheon
Flexible cable (B)

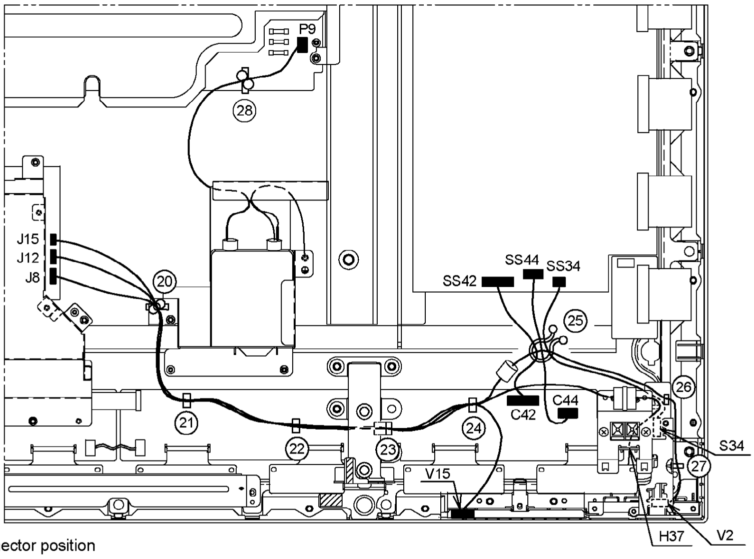
41. **Pull the bottom of the Plasma Panel forward (arrow1).**
42. **Slide the Plasma Panel and then remove the Plasma Panel (arrow2).**


Side view
2
1
Plasma Panel
Escutcheon

8. Location of Lead Wiring


FAN①
FAN②
FAN③
C35
⑤
⑧
SU45
①
②
③
④
P30
P5
P12
P2
P25
P11
P10
P23
SS11
SS35
SS12
SC45
SC23
SC2
D25
⑦
PB33
⑫
⑲
⑥
PB35
PB31
D20
⑱
SC-Board
D5
⑨
PB30
P9
SS-Board
SC20
⑩
⑪
D3
D1
J7
J5
J1
J10
J6
J4
J3
⑰
J15
J2
SC46
⑯
J8
⑳
SS42
SS44
SS34
SD46
⑬
⑭
⑮
㉑
㉒
㉓
㉔
C42
C44
H37
H37

Enlarged view of lower right side

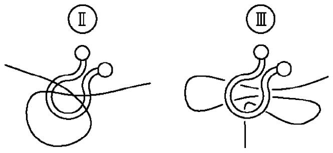

P9
㉘
J15
J12
J8
⑳
SS44
SS34
SS42
㉕
㉖
C42
C44
㉑
㉒
㉓
㉔
S34
㉗
V15
H37
V2

▬ ; Connector position

Clamp position

CON : No. — CON : No.	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑	㉒	㉓	㉔	㉕	㉖	㉗	㉘
SC2 — P2	○	○	○	○		○	○					○							○									
SC23 — P23	○	○				○	○					○							○									
SC20 — D20																		○										
PB30 — P30	○	○				○						○																
D25 — P25	○	○				○	○					○																
D1 — J1										○																		
D3 — J3										○	○																	
D5 — J5										○																		
╲ J6									○		○																	
J4 — P5	○	○				○	○		○		○	○																
J10 — P10	○	○				○	○		○		○	○																
H37 (SCside) — J7													○	○	○	○	○											
H37 (SSside) — J8																				○	○	○	○	○				
SS12 — P12			○	○	○																							
SS11 — P11				○	○																							
SS35 — C35	No clamp treatment																											
SS42 — C42																									○			
SS44 — C44																									○			
FAN① — PB31							Ⅲ	○																				
FAN② — PB33	○	○	○			Ⅰ						○																
FAN③ — PB35	○	○	○	○	○	Ⅰ						○																
V15 (V2-Board) — J15																				○	○	○	○	○				
V2 (V1-Board) — J2																				○	○	○	○	○	○	○	○	
SS34 — S34																									○			
H37 — J8																				○	○	○	○	○				
AC Inlet — P9																												○

Ⅰ , Ⅲ : Wire clamping as follows



9. Adjustment Procedure

9.1. Driver Set-up

9.1.1. Item / Preparation

1. Input a white signal of the RGB signal generator.

2. Set the picture adjustment items as follows.

- **Picture menu : Standard**
- **Color temperature : Normal**
- **Picture : 25**
- **Aspect : Full**

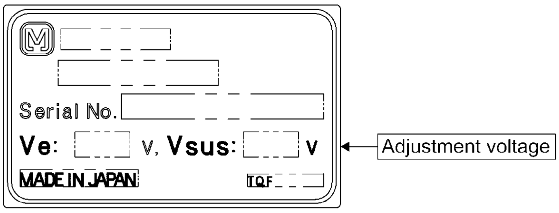
9.1.2. Adjustments

Adjust driver section voltages referring the panel data on the panel data label.

Name	Test Point	Voltage	Volume	Remarks
Vsus	TPVSUS	176V ± 2V	VR351 (P)	*
Ve	TPVE	150V ± 1V	VR6250 (SS)	*
Vda	TPVDA	75V ± 1V	Fixed	
Vad	TPVAD	-90V ± 1V	VR6801(SC)	
Vscn	TPVSCN	Vad + 130V ± 4V	Fixed	
Vset	TPVSET	225V ± 7V	Fixed	

*See the Panel label.

Panel Label information



Caution

1. First perform Vsus voltage adjustment.

2. Confirmation of Vscn voltage should be performed after confirmation of Vad voltage adjustment.
When Vad = -90V, Voltage of Vscn is 40V ± 4V.

9.2. Initialization Pulse Adjust

1. Input a white signal to plasma video input.

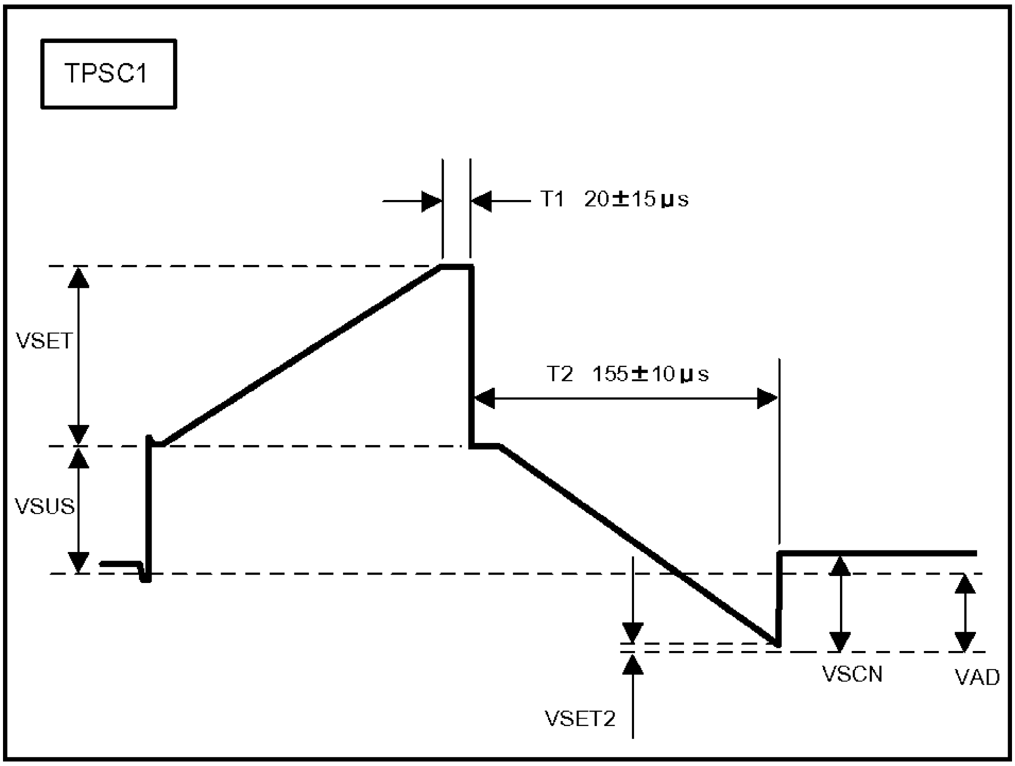
2. Set the picture adjustment items as follows.

- **Picture menu : Standard**
- **Color temperature : Normal**
- **Picture : 25**
- **Aspect : Full**

3. Connect Oscilloscope to TPSC1 (T1) and check for 20 ± 15 µ Sec.

4. Connect Oscilloscope to TPSC1 (T2) and adjust VR6602 for 155 ± 10 µ Sec.

	Test point	Volume	Level
T1	TPSC1 (SC)	Fixed	20 ± 15 µ Sec
T2	TPSS1 (SS)	VR6602(SC)	155 ± 10 µ Sec



9.3. P.C.B. (Printed Circuit Board) Remove

9.3.1. Caution

1. **To remove P.C.B. , wait 1 minute after power was off for discharge from electrolysis capacitors.**

9.3.2. Quick adjustment after P.C.B. Remove

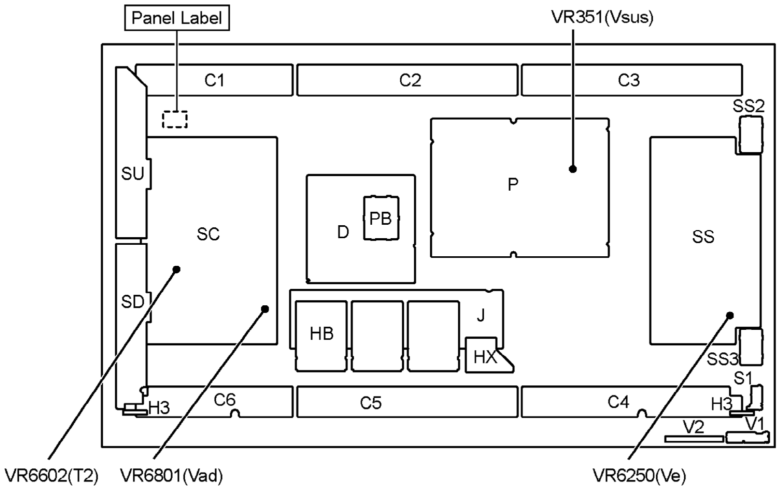
P.C.B.	Name	Test Point	Voltage	Volume	Remarks
P Board	Vsus	TPVSUS	176V ± 2V	VR351 (P)	*
SC Board	Vad	TPVAD	-90V ± 1V	VR6801 (SC)	
	Vscn	TPVSCN	Vad+ 130V ± 4V	Fixed	
	Vset	TPVSET	225V ± 7V	Fixed	
SS Board	Ve	TPVE	150V ± 1V	VR6250 (SS)	*
	Vda	TPVDA	75V ± 1V	Fixed	
D, J Board	White balance, Pedestal and Sub brightness for NTSC, PAL, HD, PC and 625i signals				

***See the Panel label.**

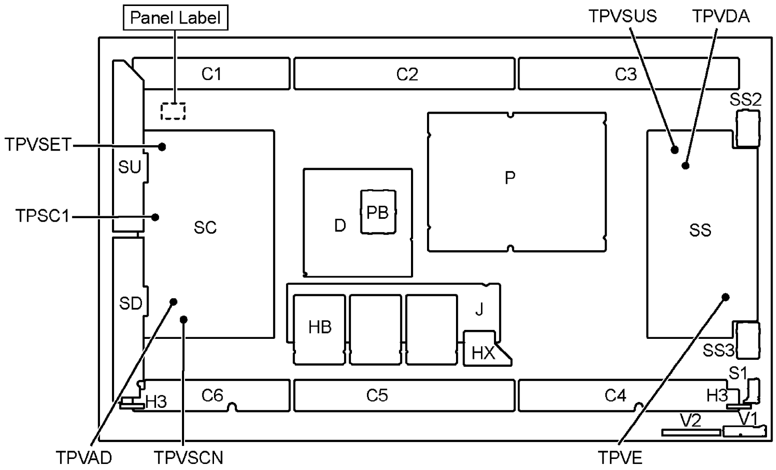
Caution:

Absolutely do not reduce Vsus below Ve not to damage the P.C.B.

9.4. Adjustment Volume Location


Panel Label
VR351(Vsus)
C1
C2
C3
SS2
P
SU
SC
D
PB
SS
SD
HB
J
HX
SS3
S1
H3
C6
C5
C4
H3
V2
V1
VR6602(T2)
VR6801(Vad)
VR6250(Ve)

9.5. Test Point Location


Panel Label
TPVSUS
TPVDA
C1
C2
C3
SS2
TPVSET
SU
P
TPSC1
SC
D
PB
SS
SD
HB
J
HX
SS3
S1
H3
C6
C5
C4
H3
V2
V1
TPVAD
TPVSCN
TPVE

10. Service mode

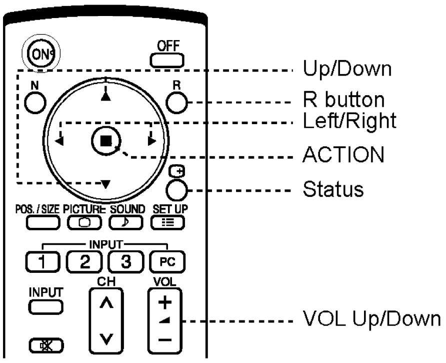
10.1. CAT (computer Aided Test) mode

CAT mode menu

CAT Panel sys8.2
IIC Mode
CD Mode
SD Mode
MS Mode
ID Mode

Mode	Function	Access button
IIC	Service Alignment	Action
CD(Complete Diagnostics)	Software version information EEPROM edit	Mute more than 5 seconds
SD(Status Display)	MTBF parameter	Action
MS Mode	Not use	-----
ID Mode	Not use	-----

Remote control



How to access the CAT mode.

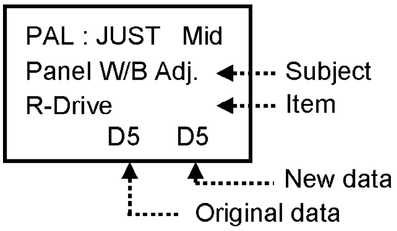
Press and the hold the **Volume down / - button** on the front panel of the unit and press the **status button** on the remote control 3 times quickly within 2 seconds, this will place the unit into the CAT mode.

To exit the CAT mode, access the ID mode and switch off the main power.

10.1.1. IIC mode

Select the IIC mode by Up/Down button on the remote control at the front page of CAT mode and then press the Action button on the remote control.

OSD


PAL : JUST Mid
Panel W/B Adj.
R-Drive
D5 D5

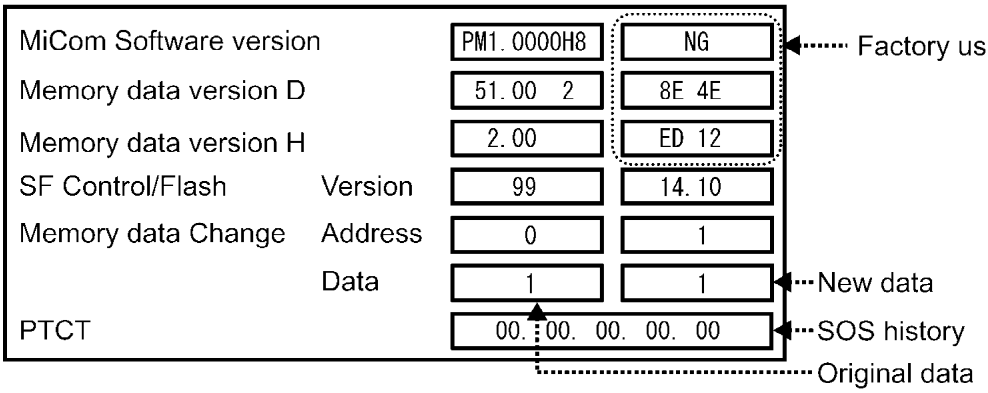
How to use the IIC mode.

1. Select the alignment **Subject** by **Up/Down buttons** on the remote control.
2. Select the alignment **Item** by **Left/Right buttons** on the remote control.
3. Adjust **optimum setting** by **Volume Up/Down buttons** on the remote control.
4. The **data is memorized** when press the **R button** on the remote control or change the alignment Subject (or Items).

Subject and item are mentioned on “IIC mode structure”.
To exit the IIC mode, press the R button on the remote control.

10.1.2. CD mode

Select the CD mode by Up/Down button on the remote control at the front page of CAT mode and then press the Mute button on the remote control more than 5 seconds.



MiCom Software version		PM1.0000H8	NG
Memory data version D		51.00 2	8E 4E
Memory data version H		2.00	ED 12
SF Control/Flash	Version	99	14.10
Memory data Change	Address	0	1
	Data	1	1
PTCT		00. 00. 00. 00. 00	

Factory use

New data

SOS history

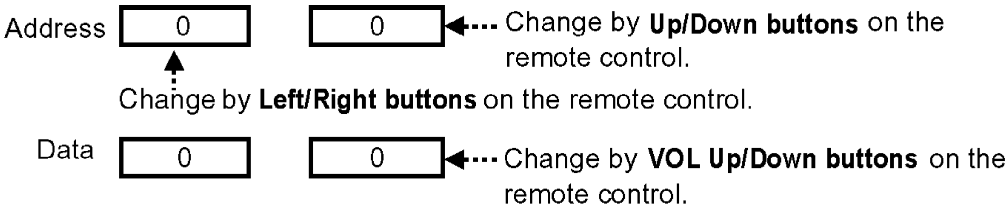
Original data

Micom software version (IC9702), this version can be upgrade by

1. replace of new version IC

2. Loading the new version software from loader tool, TZSC07036.

Memory data change



Address 0 0 Change by **Up/Down buttons** on the remote control.

Change by **Left/Right buttons** on the remote control.

Data 0 0 Change by **VOL Up/Down buttons** on the remote control.

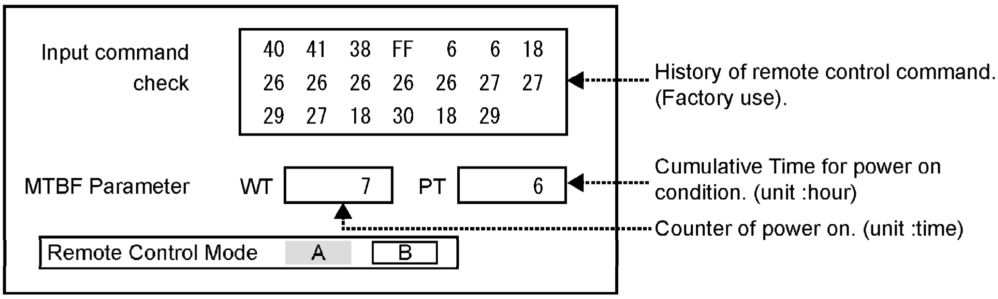
The data is memorized when switch off the main power.

To exit the CD mode, press the R button on the remote control.

10.1.3. SD mode

Select the SD mode by Up/Down button on the remote control at the front page of CAT mode and then press the Action button on the remote control.

OSD



Input command check

40	41	38	FF	6	6	18
26	26	26	26	26	27	27
29	27	18	30	18	29	

MTBF Parameter WT 7 PT 6

Remote Control Mode A B

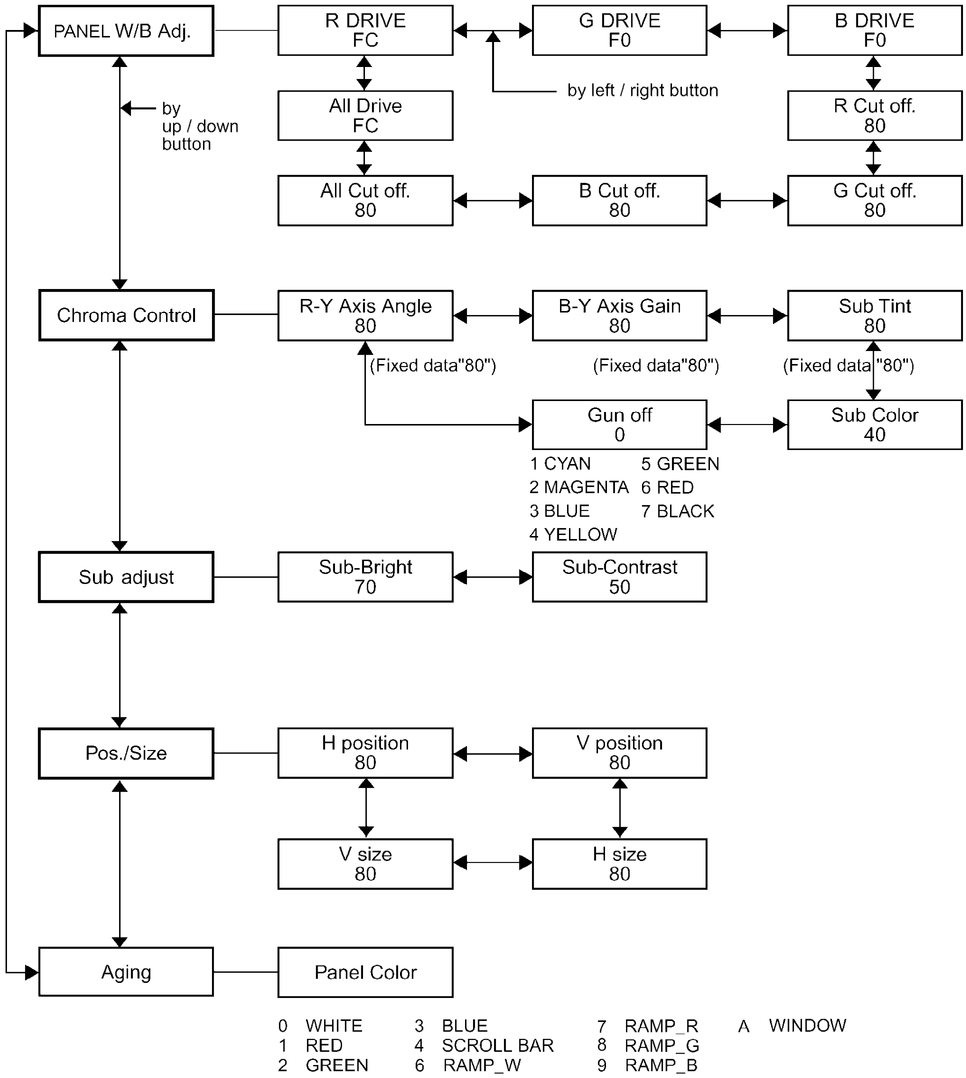
History of remote control command. (Factory use).

Cumulative Time for power on condition. (unit :hour)

Counter of power on. (unit :time)

To exit the SD mode, press the R button on the remote control.

10.2. IIC mode structure (following items value is sample data.)


PANEL W/B Adj.
R DRIVE FC
G DRIVE F0
B DRIVE F0
by left / right button
by up / down button
All Drive FC
R Cut off. 80
All Cut off. 80
B Cut off. 80
G Cut off. 80
Chroma Control
R-Y Axis Angle 80
B-Y Axis Gain 80
Sub Tint 80
(Fixed data"80")
(Fixed data"80")
(Fixed data "80")
Gun off 0
Sub Color 40
1 CYAN
5 GREEN
2 MAGENTA
6 RED
3 BLUE
7 BLACK
4 YELLOW
Sub adjust
Sub-Bright 70
Sub-Contrast 50
Pos./Size
H position 80
V position 80
V size 80
H size 80
Aging
Panel Color
0 WHITE
1 RED
2 GREEN
3 BLUE
4 SCROLL BAR
6 RAMP_W
7 RAMP_R
8 RAMP_G
9 RAMP_B
A WINDOW

These are selected by Action button of Remote and press the R button to exit.

11. Alignment

11.1. PC / RGB panel white balance

11.2. HD / 525ip / 625ip panel white balance

12. Trouble shooting guide

12.1. Self Check

12.1.1. Display Indication

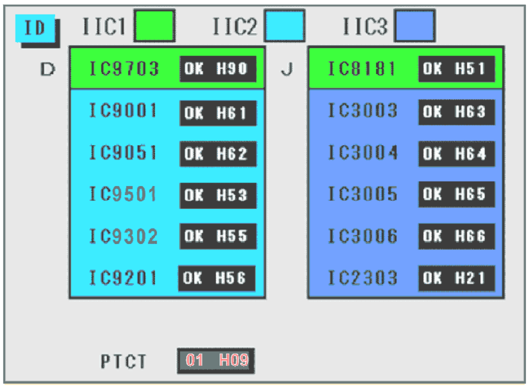
1. **Self-check is used to automatically check the bus line controlled circuit of the Plasma display.**
2. **To get into the Self-check mode, press the volume down button on the customer controls at the bottom of the set, at the same**

time pressing the OFF-TIMER button on the remote control, and the screen will show :-

If the CCU ports have been checked and found to be incorrect
Or not located then " - - " will appear in place of " OK "
“ 01 “ in the line of the “ PTCT ” means the number of blinks of the Power LED is 1. (Reference to 12.1.2)
“ H09 “ in the line of the “ PTCT ” is the error code.

Note:

The line of the “ PTCT ” displays when you get into the Self-check mode for the first time only after the Power LED blinks.



ID IIC1 IIC2 IIC3

D	IC9703	OK H90	J	IC8181	OK H51
	IC9001	OK H61		IC3003	OK H63
	IC9051	OK H62		IC3004	OK H64
	IC9501	OK H53		IC3005	OK H65
	IC9302	OK H55		IC3006	OK H66
	IC9201	OK H56		IC2303	OK H21

PTCT 01 H09

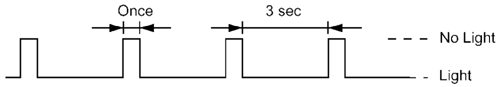
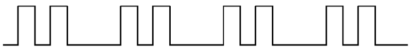
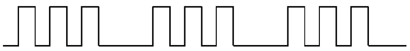
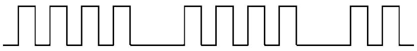
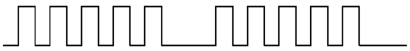
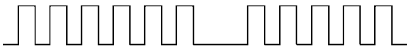
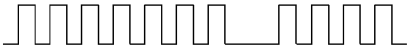
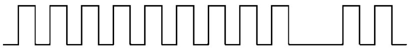
12.1.2. Power LED Blinking timing chart

1. Subject

Information of LED Blinking timing chart.

2. Contents

When an abnormality has occurred the unit, the protection circuit operates and reset to the stand by mode. At this time, the defective block can be identified by the number of blinks of the Power LED on the front panel of the unit.

Blinking times	Blinking timing	Contents & Check point
1	 Once 3 sec No Light Light	Data SOS
2		SCAN Driver1
3		3.3V SOS
4		5V SOS
5		Power SOS
6		FAN
7		SCAN Driver2
9		SUS Driver

3. Remarks

Above Fan function is operated during the fans are installed.

12.2. No Power

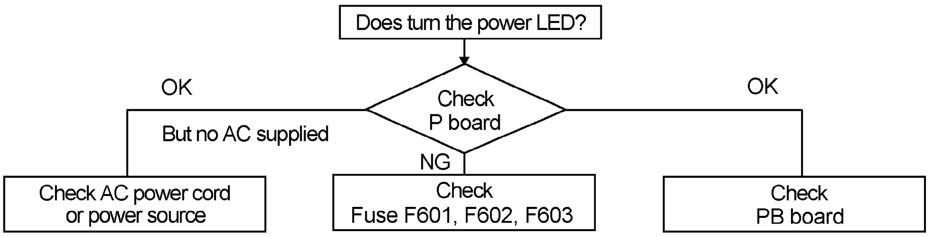
[First check point]

1. No lit.

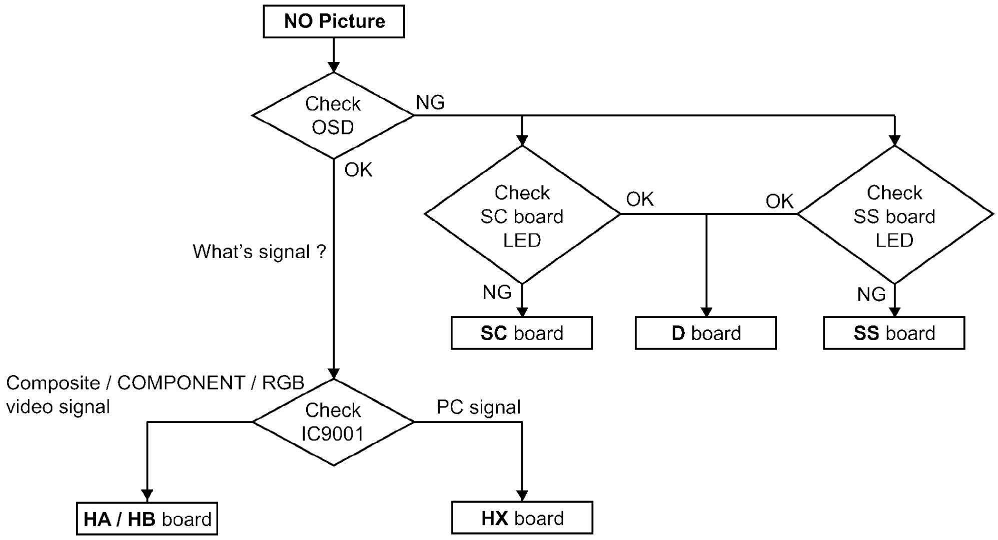
2. Green is lit then turns red blinking a few seconds later.

3. Only red is lit.

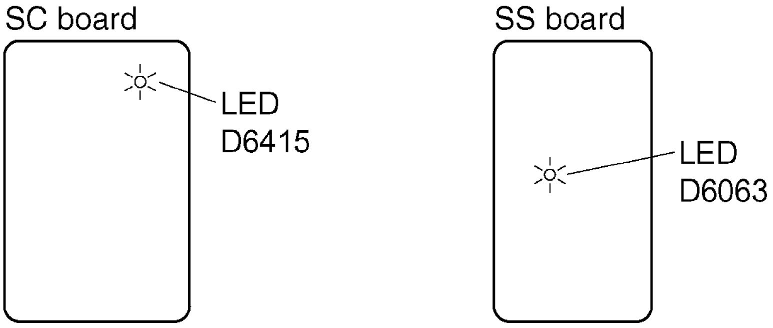
1. No lit.


Does turn the power LED?
OK
Check
P board
OK
But no AC supplied
NG
Check AC power cord
or power source
Check
Fuse F601, F602, F603
Check
PB board

12.3. No Picture


NO Picture
Check OSD
NG
OK
Check SC board LED
OK
OK
Check SS board LED
What's signal ?
NG
NG
SC board
D board
SS board
Composite / COMPONENT / RGB video signal
Check IC9001
PC signal
HA / HB board
HX board

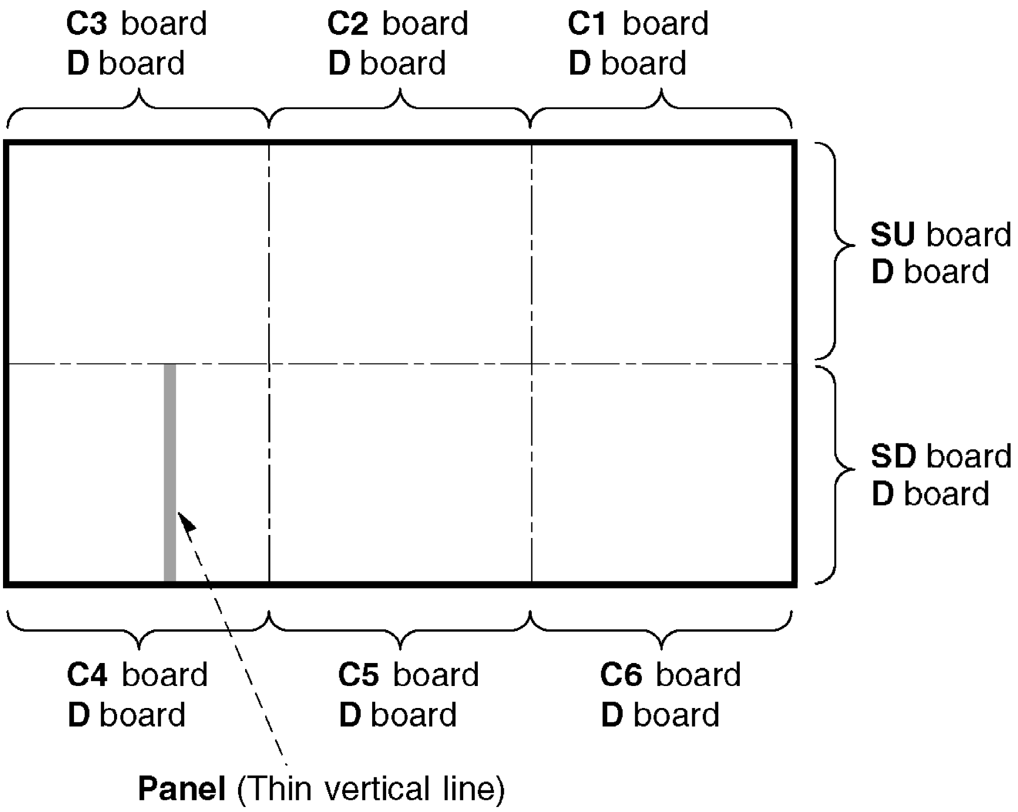
Drive circuits LED indicator


SC board
LED
D6415
SS board
LED
D6063

12.4. Local screen failure

Plasma display may have local area failure on the screen. Fig - 1 is the possible defect P.C.B. for each local area.

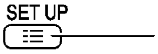
Fig - 1


C3 board
D board
C2 board
D board
C1 board
D board
SU board
D board
SD board
D board
C4 board
D board
C5 board
D board
C6 board
D board
Panel (Thin vertical line)

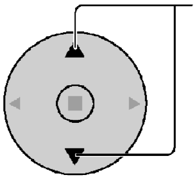
<Local screen failure chart>

13. Option Setting

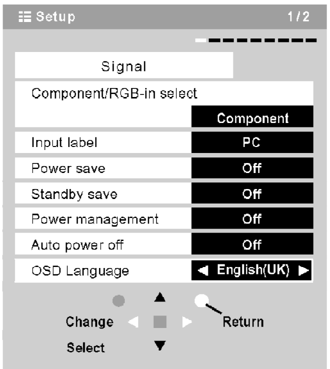
How to access the Option menu

1 

Press to display the Setup menu.

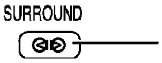
2 

Press to select “OSD Language”.



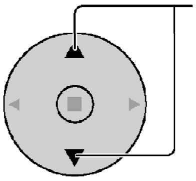
Signal

Component/RGB-in select	Component
Input label	PC
Power save	Off
Standby save	Off
Power management	Off
Auto power off	Off
OSD Language	◀ English(UK) ▶

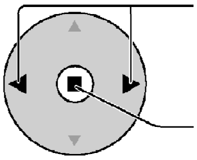
3 

Press and hold until the Options menu is displayed.

Setting the Option menus

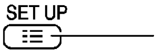
1 

Press to select your preferred menu.

2 

Press to adjust the menu.

Press to confirm.

3 

Press to exit from Options menu.

Option Menu for GPH8D series

GPH8D chassis series have special function and operation setting facility called Option Menu. This Option Menu is useful for special function required customers. This should be set at the installation stage.

Option menus	default setting	Contents
Off-timer function	Enable	Off-timer operation Enable/Disable.
Onscreen display	On	Enable/Disable to display input mode indication a power on and no signal indication.
Initial INPUT	Off	Sets the initial input mode when the power is turn Allow input mode selection while power is on.
Initial VOL level	Off	Sets the initial volume level when the power is tur Allow Volume control while power is on.
Maximum VOL Level	Off	Sets the maximum volume to desired level. Volum cannot exceed this level.
INPUT lock	Off	Fixes the input mode to AV, Component/RGB or P not change input mode by input selection key.
Studio W/B	Off	Set warm mode color temperature to 3,200 Kelvin.
Advanced PIP	Off	Off : Sets normal two screen display mode. On : Sets Advanced PIP mode.
Display size	Off	Adjusts the image display size on screen. On : Sets the image display size approximately 95 normal image display.
Button lock	Off	Enable/Disable bottom operation buttons (Input, M Enter and/or volume up/down)
Remocon User Level	Off	Remote key invalidation. Off : Valid key is all key of remote. User1 : Valid key are only Stand-by (ON/OFF), Inpu input, Status, Surround, Sound mute On/Off, and adjustment. User2 : Valid key is only Stand-by (ON/OFF). User3 : All keys are null and void
ID select	0	Set ID number from 0 to 100.
Remote ID	Off	Remote ID function On/Off. (While the Remote ID on, standard remote functio not control the unit.)
Serial ID	Off	Serial ID function On/Off
Slot power	Off	Sets the slot power mode while the power is turne Allow Optional Terminal Board insert Slots while on.
V. Installation	Off	V. Installation function On/Off This mode is available for TH-50PHD8EK/ES/BK/B Note:Turn up the power switch for the upward dir when you set display vertically.
Rotate	Off	The image rotates 180 degrees (up-down)

Note :
When both main unit buttons and remote control are disabled due to the “Button lock”, “Remocon User level” or “RemoteID” adjustments, set all the values “Off” so that all the buttons are enabled again.

Press the “Volume down” button on main unit together with “R“ button on the remote control and hold for more than 5 seconds. The “SHIPPING” menu is displayed and the lock is released when it disappears.

14. Circuit Board Layout

14.1. P-Board

14.2. PB-Board

14.3. HB-Board

14.4. HX-Board

14.5. J-Board

14.6. D-Board

14.7. C1-Board

14.8. C2-Board

14.9. C3-Board

14.10. C4-Board

14.11. C5-Board

14.12. C6-Board

14.13. SC-Board

14.14. SU-Board

14.15. SD-Board

14.16. SS, SS2 and SS3-Board

14.17. H3, S1, V1 and V2-Board

15. Schematic Diagrams

15.1. Schematic Diagram Notes

Important Safety Notice

Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacture's specified parts.

Notes:

1. **Resistor**
   Unit of resistance is OHM [Ω] (K=1,000, M=1,000,000).
2. **Capacitor**
   Unit of capacitance is µF, unless otherwise noted.
3. Coil
   Unit of inductance is H, unless otherwise noted.
4. Test Point
   ⚲ : Test Point position
5. Earth Symbol
   ⏚ : Chassis Earth (Cold) ⊽ : Line Earth (Hot)
6. Voltage Measurement
   Voltage is measured by a DC voltmeter.
   Conditions of the measurement are the following:
   Power Source AC120V, 50/60Hz
   Receiving Signal .... Colour Bar signal (RF)
   All customer's controls .... Maximum positions
7. When arrow mark (↗) is found, connection is easily found from the direction of arrow.

8. Indicates the major signal flow. : Video ➡ Audio ⇨
9. This schematic diagram is the latest at the time of printing and subject to change without notice.

TH-50PHD8BK/BS/EK/ES
Schematic Diagram Notes

Remarks:

1. The Power Circuit contains a circuit area which uses a separate power supply to isolate the earth connection.
   The circuit is defined by HOT and COLD indications in the schematic diagram. Take the follwing precautions.
   All circuits, except the Power Circuit, are cold.
   Precautions
   a. Do not touch the hot part or the hot and cold parts at the same time or you may be shocked.
   b. Do not short- circuit the hot and cold circuits or a fuse may blow and parts may break.
   c. Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously or a fuse may blow.
   Connect the earth of instruments to the earth connection of the circuit being measured.
   d. Make sure to disconnect the power plug before removing the chassis.

TH-50PHD8BK/BS/EK/ES
Schematic Diagram Notes

15.2. Main Block Diagram

15.3. P-Board Block Diagram

15.4. P-Board (1 of 2) Schematic Diagram

15.5. P-Board (2 of 2) Schematic Diagram

15.6. PB-Board Block and Schematic Diagram

15.7. HB-Board Block Diagram

15.8. HB-Board (1 of 2) Schematic Diagram

15.9. HB-Board (2 of 2) Schematic Diagram

15.10. HX-Board Block and Schematic Diagram

15.11. J-Board (1 of 2) and H3-Board Block Diagram

15.12. J-Board (2 of 2) Block Diagram

15.13. J-Board (1 of 4) and H3-Board Schematic Diagram

15.14. J-Board (2 of 4) Schematic Diagram

15.15. J-Board (3 of 4) Schematic Diagram

15.16. J-Board (4 of 4) Schematic Diagram

15.17. D-Board (1 of 2) Block Diagram

15.18. D-Board (2 of 2) Block Diagram

15.19. D-Board (1 of 12) Schematic Diagram

15.20. D-Board (2 of 12) Schematic Diagram

15.21. D-Board (3 of 12) Schematic Diagram

15.22. D-Board (4 of 12) Schematic Diagram

15.23. D-Board (5 of 12) Schematic Diagram

15.24. D-Board (6 of 12) Schematic Diagram

15.25. D-Board (7 of 12) Schematic Diagram

15.26. D-Board (8 of 12) Schematic Diagram

15.27. D-Board (9 of 12) Schematic Diagram

15.28. D-Board (10 of 12) Schematic Diagram

15.29. D-Board (11 of 12) Schematic Diagram

15.30. D-Board (12 of 12) Schematic Diagram

15.31. C1, C2, C5 and C6-Board Block Diagram

15.32. C3 and C4-Board Block Diagram

15.33. C1-Board (1 of 2) Schematic Diagram

15.34. C1-Board (2 of 2) Schematic Diagram

15.35. C2-Board (1 of 2) Schematic Diagram

15.36. C2-Board (2 of 2) Schematic Diagram

15.37. C3-Board (1 of 2) Schematic Diagram

15.38. C3-Board (2 of 2) Schematic Diagram

15.39. C4-Board (1 of 2) Schematic Diagram

15.40. C4-Board (2 of 2) Schematic Diagram

15.41. C5-Board (1 of 2) Schematic Diagram

15.42. C5-Board (2 of 2) Schematic Diagram

15.43. C6-Board (1 of 2) Schematic Diagram

15.44. C6-Board (2 of 2) Schematic Diagram

15.45. SC-Board Block Diagram

15.46. SC-Board (1 of 2) Schematic Diagram

15.47. SC-Board (2 of 2) Schematic Diagram

15.48. SU-Board Block Diagram

15.49. SU-Board (1 of 2) Schematic Diagram

15.50. SU-Board (2 of 2) Schematic Diagram

15.51. SD-Board Block Diagram

15.52. SD-Board (1 of 2) Schematic Diagram

15.53. SD-Board (2 of 2) Schematic Diagram

15.54. SS, SS2 and SS3-Board Block Diagram

15.55. SS-Board (1 of 2), SS2 and SS3-Board Schematic Diagram

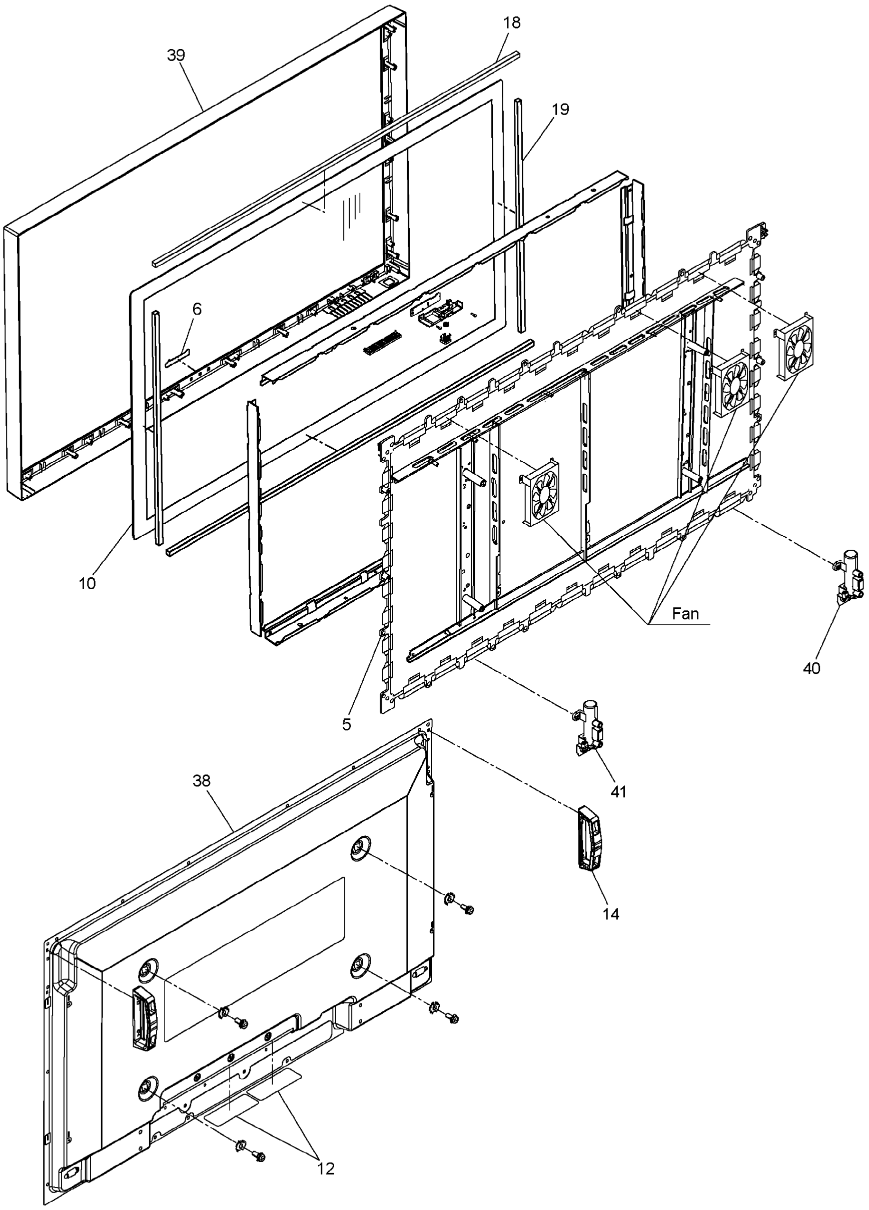
15.56. SS-Board (2 of 2) Schematic Diagram

15.57. S1, V1 and V2-Board Block and Schematic Diagram

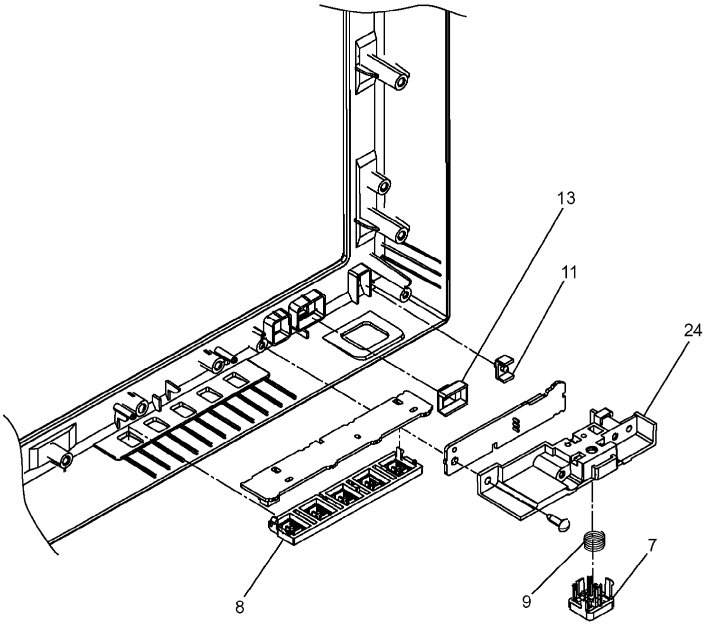
16. Parts Location

16.1. Exploded View

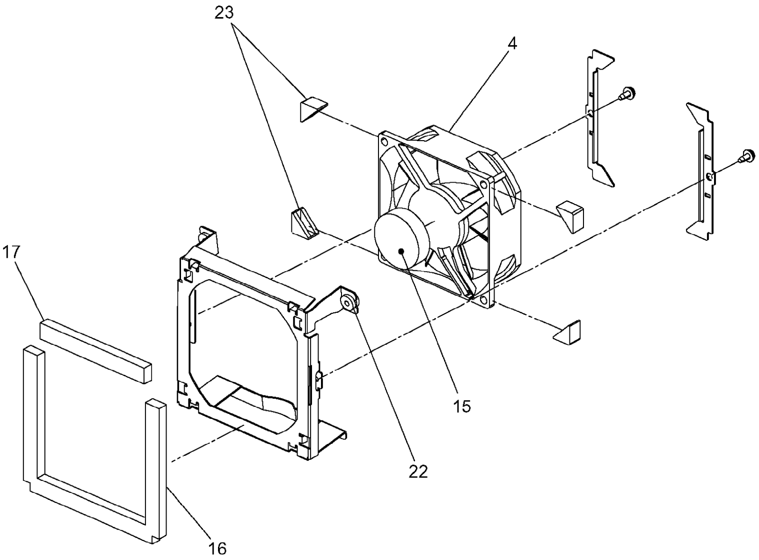
16.1.1. The main mechanical parts relation


18
39
19
6
10
Fan
40
5
38
41
14
12

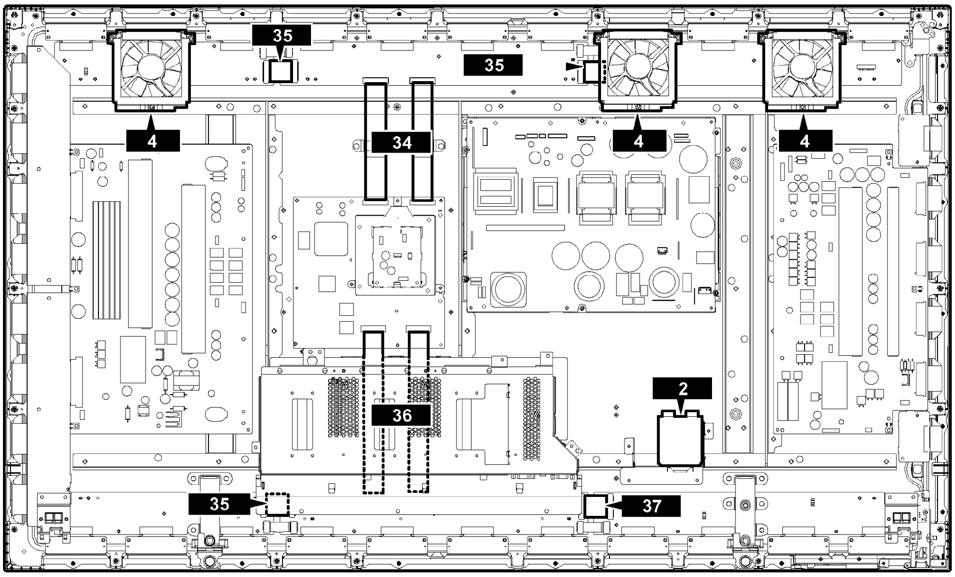
16.1.2. Escutcheon part location enlarged views of lower left side



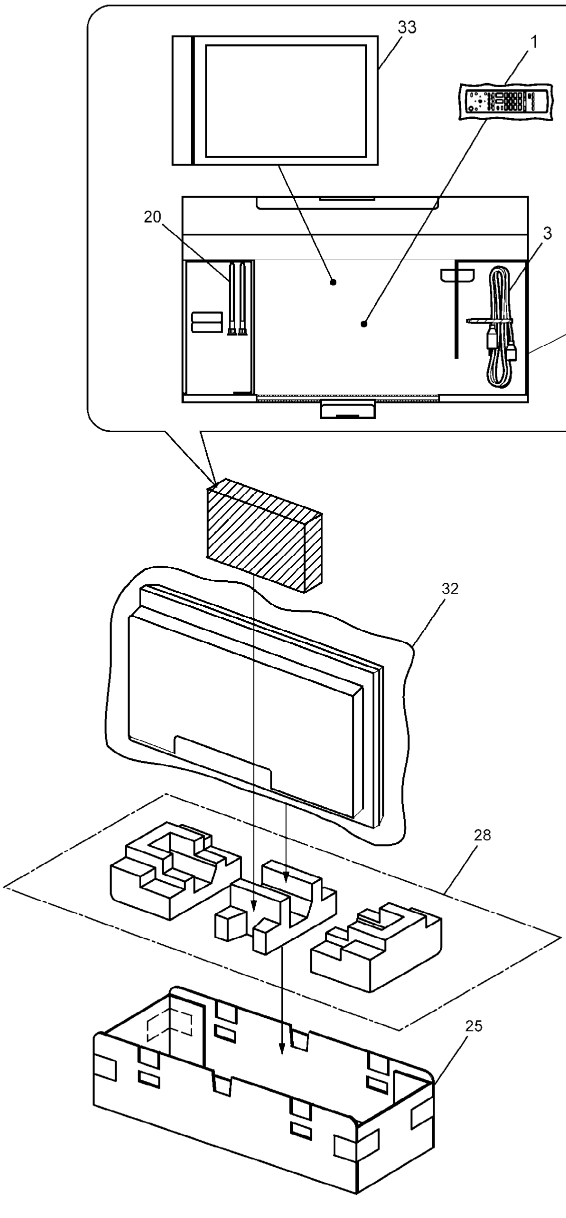
16.1.3. Fan part location enlarged views

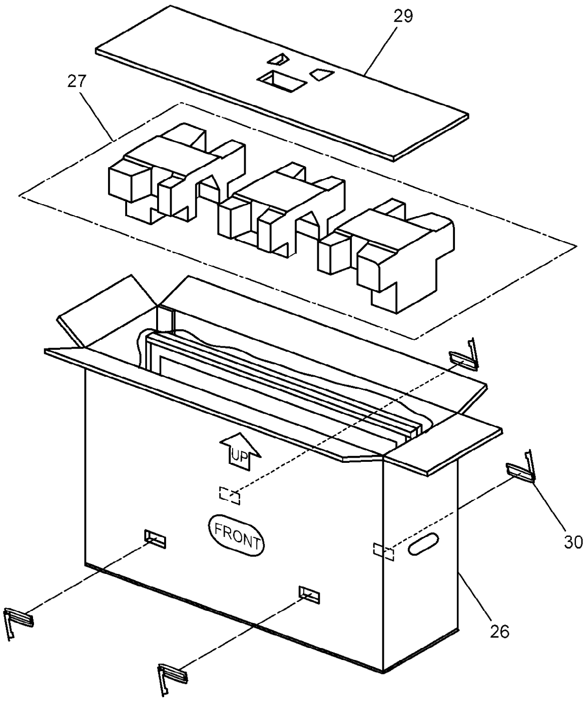

23
4
17
15
22
16

16.2. Cable relation

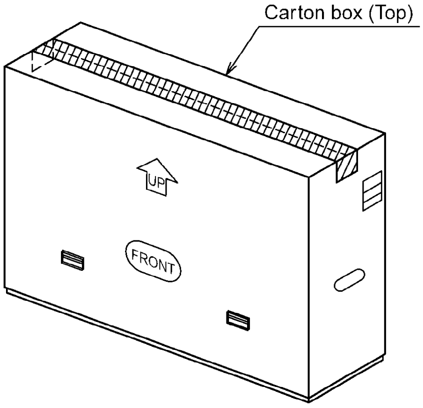

35
35
4
34
4
4
2
36
35
37

16.3. Packing summary




29
27
UP
FRONT
30
26

Complete package


Carton box (Top)
UP
FRONT

17. Mechanical Replacement Parts List

Note:

All parts except parts mentioned [PAVCCZ] in the Remarks column are supplied by AVC-SPC.
Parts mentioned [PAVCCZ] are supplied by PAVCCZ.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	EUR7636090R	REMOTE CONTROL	1	PAVCCZ(or EUR7636070R)
	J0KD00000095	FLAT CORE	2	
	J0KD00000096	FLAT CORE	2	
2	K2AH3H000033	AC-INLET	1	⚠
3	K2CN3DH00006	AC CORD(B/H)	1	EK/ES ⚠
3	K2CT3DH00018	AC CORD(B/H)	1	BK/BS ⚠
4	L6FALEFH0028	FAN	3	
5	MD50H08A2J	PLASMA DISPLAY PANEL	1	⚠
6	TBMA162	PANASONIC BADGE	1	
7	TBXA46601	POWER BUTTON	1	EK/BK
7	TBXA46602	POWER BUTTON	1	ES/BS
8	TBXA46701	5KEY BUTTON	1	EK/BK
8	TBXA46702	5KEY BUTTON	1	ES/BS
9	TESD031	SPRING	1	
	THEA068N	SCREW	4	
	THEL0239	SCREW	18	
	THEL027N	SCREW	20	
	THEL035N	SCREW	154	
	THTD010N	SCREW	3	
	THTD011J	SCREW	3	
10	TKGA5225	FRONT GLASS	1	PAVCCZ
11	TKKC5213	LED PANEL	1	
12	TKKL5266	COVER	2	
13	TKPA95001	REMOTE SENSOR PANEL	1	EK/BK
13	TKPA95002	REMOTE SENSOR PANEL	1	ES/BS
14	TKRA20501	HANDLE	2	
15	TMKG335	SPONGE (FAN CENTER)	3	
16	TMKG358	SPONGE (FAN)	3	
17	TMKG359	SPONGE (FAN)	3	
18	TMKG558	SPONGE T/B	2	
19	TMKG559	SPONGE L/R	2	
	TMM15414-2	CLAMPER	1	
	TMM17499	CLAMPER	1	
	TMM23416	SPACER	11	
	TMM25401	CLAMPER	6	
	TMM7464-2	CLAMPER	3	
	TMM7468-1	CLAMPER	3	
	TMME047	CLAMPER	1	
	TMME061	CLAMPER	2	
	TMME185	CLAMPER	2	
20	TMME187	CLAMPER	2	
	TMME190	CLAMPER	1	
	TMME199	CLAMPER	3	
	TMME228	CLAMPER	2	
	TMME248	CLAMPER	1	
22	TMMJ074	CUSHION (RUBBER)	9	
23	TMMJ082	SPONGE (FAN CORNER)	12	
	TMMX095	BRACKET	2	
24	TMWC015	POWER BUTTON BRACKET	1	
25	TPC0E61301	CARTON BOX BOTTOM	1	PAVCCZ
26	TPC0E64101	CARTON BOX TOP	1	PAVCCZ ⚠
27	TPD0E0099	CUSHION-TOP	1	PAVCCZ

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
28	TPD0E0100	CUSHION-BOTTOM	1	PAVCCZ
29	TPD0E9009	TOP PAD	1	PAVCCZ
30	TPD169487	JOINT	4	
	TPDA0969	CUSHION (CENTER/UPPER)	1	
	TPDA0970	CUSHION (BOTTOM CENTER)	1	PAVCCZ
	TPDA0971	CUSHION(UPPER/LEFT)	1	
	TPDA0972	CUSHION(UPPER/RIGHT)	1	
	TPDA0973	CUSHION (BOTTOM LEFT)	1	PAVCCZ
	TPDA0974	CUSHION (BOTTOM RIGHT)	1	PAVCCZ
31	TPDF1197	ACCESSORIES BOX	1	
	TPDX0009	TOP PALLET	1	
	TPDX0010	BOTTOM PALLET	1	
32	TPE0E4010	PROTECT COVER	1	PAVCCZ
	TPGA2260	CARDBOARD SLEEVE	2	
33	TQB0E0217A	INSTRUCTION BOOK(ENGLISH)	1	PAVCCZ EK/ES ⚠
33	TQB0E0217B	INSTRUCTION BOOK(GERMAN)	1	PAVCCZ EK/ES ⚠
33	TQB0E0217C	INSTRUCTION BOOK(ITALIAN)	1	PAVCCZ EK/ES ⚠
33	TQB0E0217D	INSTRUCTION BOOK(FRENCH)	1	PAVCCZ EK/ES ⚠
33	TQB0E0217E	INSTRUCTION BOOK(SPANISH)	1	PAVCCZ EK/ES ⚠
33	TQB0E0217F	INSTRUCTION BOOK(DUTCH)	1	PAVCCZ EK/ES ⚠
33	TQB0E0217K	INSTRUCTION BOOK(DANISH)	1	PAVCCZ EK/ES ⚠
33	TQB0E0217U	INSTRUCTION BOOK(SWEDISH)	1	PAVCCZ EK/ES ⚠
33	TQB0E0218	INSTRUCTION BOOK(ENGLISH)	1	PAVCCZ BK/BS ⚠
34	TSXL448	CABLE(D31-C24/D32-C25)	2	
35	TSXL450	CABLE(C10-C20/C21-C31/C50	3	
36	TSXL473	CABLE(D33-C54/D34-C55)	2	
37	TSXL480	CABLE(C41-C51)	1	PAVCCZ
38	TTUA1242	REAR COVER	1	PAVCCZ EK
38	TTUA1243	REAR COVER	1	PAVCCZ ES
38	TTUA1244	REAR COVER	1	PAVCCZ BK
38	TTUA1245	REAR COVER	1	PAVCCZ BS
39	TXFKE010YSS	ESCUTCHEON ASS'Y	1	PAVCCZ EK/BK
39	TXFKE010YTS	ESCUTCHEON ASS'Y	1	PAVCCZ ES/BS
40	TXFMZ010MHSA	STAND POLE BRACKET(LEFT)	1	
41	TXFMZ020MHSA	STAND POLE BRACKET(RIGHT)	1	
	TXJSPL0YSS	SPEAKER LEAD(LEFT)	1	PAVCCZ
	TXJSPR0YSS	SPEAKER LEAD(RIGHT)	1	PAVCCZ
	XTB4+10JFJ	SCREW(VESA BRACKET)ROHS	25	
	XTBT964J	SCREW	2	
	XTV3+10GFJ	SCREW	3	
	XTV3+10JFJ	SCREW	2	
	XTW3+8TFJ	SCREW	3	
	XYC3+FF8FJ	SCREW	2	
	XYC3+JF12FJ	SCREW	3	
	XYC4+FJ35FJK	SCREW	19	
	XYN3+F10FJ	SCREW	2	
	XYN3+F8FJ	SCREW	3	
	XYN3+J12FJ	SCREW	36	
	XYN4+E8FJ	SCREW(EARTH)	1	
	XYN5+C20FJ	SCREW	8	
	XYN8+F20FJK	SCREW	4	
	XZBT6530	POLY BAG	1	

18. Replacement Parts List

18.1. Relpacement Parts List Notes

Important Safety Notice

Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.

RTL (Retention Time Limited)

Note: The marking (RTL) indicates that the Retention Time is Limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

Abbreviation of part name and description

1. Resistor

Example:

ERD25TJ104 C 100KOHM, J, 1/4W

Type Allowance

2. Capacitor

Example:

ECKF1H103ZF C 0.01UF, Z, 50V

Type Allowance

Type	Allowance
C : Carbon F : Fuse M : Metal Oxide Metal FIlm S : Solid W : Wire Wound	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20%

Type	Allowance
C : Ceramic E : Electrolytic P : Polyester Polyprop lene T : Tantalum	C : ±0.25pF D : ±0.5pF F : ±1pF G : ±3pF J : ±5pF K : ±10pF L : ±15pF M : ±20pF P : +100%, -0% Z : +80%, -20%

18.2. Electrical Replacement Parts List

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
F601.602	K5D103BMA001	TIME LAG FUSE HIGH	2	⚠
F603	K5D102BNA007	TIME LAG FUSE HIGH	1	⚠
A601,02	RA362MSV7T	ARRESTOR	2	⚠
C10	K1MN50BA0076	50P CONNECTOR	1	
C11	K1KA06BA0107	6P CONNECTOR	1	
C20,21	K1MN50BA0076	50P CONNECTOR	2	
C22,23	K1KA06BA0107	6P CONNECTOR	2	
C24,25	K1MN55BA0076	55P CONNECTOR	2	
C31	K1MN50BA0076	50P CONNECTOR	1	
C33	K1KA06BA0107	6P CONNECTOR	1	
C35	K1KA10AA0153	10P CONNECTOR	1	
C41	K1MN55BA0076	55P CONNECTOR	1	
C42	K1KA10AA0153	10P CONNECTOR	1	
C43	K1KA06BA0107	6P CONNECTOR	1	
C44	K1KA20AA0009	20P CONNECTOR	1	
C50	K1MN50BA0076	50P CONNECTOR	1	
C51	K1MN55BA0076	55P CONNECTOR	1	
C52,53	K1KA06BA0107	6P CONNECTOR	2	
C54,55	K1MN68BA0076	68P CONNECTOR	2	
C60	K1MN50BA0076	50P CONNECTOR	1	
C61	K1KA06BA0107	6P CONNECTOR	1	
C301	RR3AD681KP	CERAMIC CAPACITOR	1	
C302	ECJ1VB1H472K	C 4700PF, K, 50V	1	
C303	KZE1E470P	ELECTROLYTIC CAPACITOR	1	
C305	ECJ2XC1H101J	C 100PF, J, 50V	1	
C307	TBB224K5	CERAMIC CHIP CAPACITOR	1	
C332	KZE1E470	ELECTROLYTIC CAPACITOR	1	
C335	TEB104K5	CERAMIC CHIP CAPACITOR	1	
C341	RR3AD332K	CERAMIC CAPACITOR	1	
C352	TCR474K2A	CERAMIC CHIP CAPACITOR	1	
C353	KMQ220901Z	ELECTROLYTIC CAPACITOR	1	
C354	TEB104K5	CERAMIC CHIP CAPACITOR	1	
C355	TCR474K2A	CERAMIC CHIP CAPACITOR	1	
C356	TAB104K2E	CERAMIC CHIP CAPACITOR	1	
C359	KZE1E470	ELECTROLYTIC CAPACITOR	1	
C360,61	KMQ220901Z	ELECTROLYTIC CAPACITOR	2	
C363,64	RR3DD221K	CERAMIC CAPACITOR	2	
C366	KZE2A331L	ELECTROLYTIC CAPACITOR	1	
C369	TAB104K2E	CERAMIC CHIP CAPACITOR	1	
C374,75	RR3DD221K	CERAMIC CAPACITOR	2	
C401	KZE1E470	ELECTROLYTIC CAPACITOR	1	
C410	ECWH8183HVB	PLASTIC FILM CAPACITOR	1	
C411	ECJ3YB1E475K	C 4.7UF, K, 25V	1	
C412	TBB105K1	CERAMIC CHIP CAPACITOR	1	
C451	KZE1E272	ELECTROLYTIC CAPACITOR	1	
C452	KZE1E821L	ELECTROLYTIC CAPACITOR	1	
C454,55	ECJ3YB1E475K	C 4.7UF, K, 25V	2	
C457	KZE1E821L	ELECTROLYTIC CAPACITOR	1	
C458	ECJ3YB1E475K	C 4.7UF, K, 25V	1	
C459	KZE1E821L	ELECTROLYTIC CAPACITOR	1	
C460	ECJ2FB1H104K	C 0.1UF, K, 50V	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C461	**KZE1E471L**	**ELECTROLYTIC CAPACITOR**	**1**	
C462	**ECJ2FB1H104K**	**C 0.1UF, K, 50V**	**1**	
C463	**KZE1E101**	**ELECTROLYTIC CAPACITOR**	**1**	
C464	**ECJ2FB1H104K**	**C 0.1UF, K, 50V**	**1**	
C465	**KZE1E101**	**ELECTROLYTIC CAPACITOR**	**1**	
C466-69	**ECJ2FB1H104K**	**C 0.1UF, K, 50V**	**4**	
C471	**ECJ2FB1H104K**	**C 0.1UF, K, 50V**	**1**	
C472	**KZE1E470**	**ELECTROLYTIC CAPACITOR**	**1**	
C501	**KMQ2W161K**	**ELECTROLYTIC CAPACITOR**	**1**	
C502	**ECJ2FB1H104K**	**C 0.1UF, K, 50V**	**1**	
C503	**TBB106K1A**	**CERAMIC CHIP CAPACITOR**	**1**	
C507	**KZE1E101**	**ELECTROLYTIC CAPACITOR**	**1**	
C512	**KZE1E101**	**ELECTROLYTIC CAPACITOR**	**1**	
C551	**KZE1E471L**	**ELECTROLYTIC CAPACITOR**	**1**	
C553	**TBB475K1**	**CERAMIC CHIP CAPACITOR**	**1**	
C555	**KZE1E101**	**ELECTROLYTIC CAPACITOR**	**1**	
C556	**KZE1A471**	**ELECTROLYTIC CAPACITOR**	**1**	
C557,58	**ECJ2FB1H104K**	**C 0.1UF, K, 50V**	**2**	
C559	**CD221K**	**CERAMIC CAPACITOR**	**1**	⚠
C560	**ECJ2FB1H104K**	**C 0.1UF, K, 50V**	**1**	
C562	**ECJ2FB1H104K**	**C 0.1UF, K, 50V**	**1**	
C563	**ECJ2XB1H103K**	**C 0.01UF, K, 50V**	**1**	
C601	**ECQU2A105ML**	**PLASTIC FILM CAPACITOR**	**1**	⚠
C603,04	**CD221K**	**CERAMIC CAPACITOR**	**2**	
C606	**ECQU2A224ML**	**PLASTIC FILM CAPACITOR**	**1**	
C610,11	**MMXC2W105K**	**PLASTIC FILM CAPACITOR**	**2**	
C620,21	**ECKD3A102KBP**	**C 1000PF, K, 1KV**	**2**	
C622	**ECQE6104KF**	**P 0.1UF, K,630V**	**1**	
C623,24	**KMQ2W221L**	**ELECTROLYTIC CAPACITOR**	**2**	
C625	**TBB474K2**	**CERAMIC CHIP CAPACITOR**	**1**	
C626	**KMQ2W221L**	**ELECTROLYTIC CAPACITOR**	**1**	
C627	**ECQE6472B45**	**PLASTIC FILM CAPACITOR**	**1**	
C628	**CD331K**	**CERAMIC CAPACITOR**	**1**	⚠
C629	**KZE1E470**	**ELECTROLYTIC CAPACITOR**	**1**	
C630	**ECQU2A473MN**	**P 0.047UF, M,250V**	**1**	
C633	**ECJ2XB1H102K**	**C 1000PF, K, 50V**	**1**	
C634	**ECJ2FB1E224K**	**C 22UF, K, 25V**	**1**	
C701	**TBB475K1**	**CERAMIC CHIP CAPACITOR**	**1**	
C703	**TEB104K5**	**CERAMIC CHIP CAPACITOR**	**1**	
C711	**TEB104K2**	**CERAMIC CHIP CAPACITOR**	**1**	
C801,02	**EEVHB1C471**	**E 470UF, 16V**	**2**	
C804	**ECJ2XB1H222K**	**C 2200PF, K, 50V**	**1**	
C805	**ECJ1VB1C105K**	**C 0.01UF, K, 16V**	**1**	
C806	**ECJ1XB1C104K**	**C 0.1UF, Z, 16V**	**1**	
C807	**ECJ3XF1C475Z**	**C 4.7UF, Z, 16V**	**1**	
C808	**ECJ1XB1C104K**	**C 0.1UF, Z, 16V**	**1**	
C809	**ECJ3YB1C225K**	**C 0.022UF, K, 16V**	**1**	
C811,12	**EEVHB1C471**	**E 470UF, 16V**	**2**	
C814	**ECJ2XB1H472K**	**C 4700PF, K, 50V**	**1**	
C815	**ECJ1VB1C105K**	**C 0.01UF, K, 16V**	**1**	
C816	**ECJ1XB1C104K**	**C 0.1UF, Z, 16V**	**1**	
C817	**ECJ3XF1C475Z**	**C 4.7UF, Z, 16V**	**1**	
C818	**ECJ1XB1C104K**	**C 0.1UF, Z, 16V**	**1**	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C819	ECJ3YB1C225K	C 0.022UF, K, 16V	1	
C820	ECJ2XC1H820J	C 82PF, J, 50V	1	
C821	F2H0J102A010	C 1000UF, 6.3V	1	
C822	EEVHB1C471	E 470UF, 16V	1	
C824	ECJ2XB1H472K	C 4700PF, K, 50V	1	
C825	ECJ1VB1C105K	C 0.01UF, K, 16V	1	
C826	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C827	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	
C828	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C829	F1J0J1060004	C 0.010UF, K, 16V	1	
C830	ECJ2XC1H820J	C 82PF, J, 50V	1	
C831	EEEHB1C470P	C 47PF, J, 16V	1	
C832	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C833	ECJ1VB1H103K	C 0.001UF, K, 50V	1	
C834	EEEHB1C470P	C 47PF, J, 16V	1	
C835	F1J0J1060004	C 0.010UF, K, 16V	1	
C836	ECJ3YB1C225K	C 0.022UF, K, 16V	1	
C837	F1J0J1060004	C 0.010UF, K, 16V	1	
C838	ECJ3YB1C225K	C 0.022UF, K, 16V	1	
C839	F1J0J1060004	C 0.010UF, K, 16V	1	
C840	ECJ3YB1C225K	C 0.022UF, K, 16V	1	
C841	F1J0J1060004	C 0.010UF, K, 16V	1	
C842	ECJ3YB1C225K	C 0.022UF, K, 16V	1	
C843	F1J0J1060004	C 0.010UF, K, 16V	1	
C844	ECJ3YB1C225K	C 0.022UF, K, 16V	1	
C845	F1J0J1060004	C 0.010UF, K, 16V	1	
C846	ECJ3YB1C225K	C 0.022UF, K, 16V	1	
C847	F1J0J1060004	C 0.010UF, K, 16V	1	
C848	ECJ3YB1C225K	C 0.022UF, K, 16V	1	
C850	ECQB1H104JF	P 0.1UF, J, 50V	1	
C852	ECA1EM471	E 470UF, 25V	1	
C854	EEUFC1C471	E 470UF, 16V	1	
C1530	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C2350,51	ECJ3YB1C225K	C 0.022UF, K, 16V	2	
C2352,53	EEEHB1H100P	C 10PF, J, 50V	2	
C2354,55	EEEHB1V470P	E 47UF, 35V	2	
C2356,57	ECJ2XB1H102K	C 1000PF, K, 50V	2	
C2358,59	EEEHP1V2R2R	E 2.2UF, 35V	2	
C2360,61	ECJ2XC1H102J	C 1000PF, J, 50V	2	
C2362,63	EEEHB1E471UP	C 470PF, J, 25V	2	
C2364,65	ECQV1H104JM	P 0.1UF, J, 50V	2	
C2366,67	ECJ3YB1E225K	C 2.2UF, K, 25V	2	
C2368,69	ECQV1H104JM	P 0.1UF, J, 50V	2	
C2370,71	EEEHB1V470P	E 47UF, 35V	2	
C2373-75	ECJ1XB1C104K	C 0.1UF, Z, 16V	3	
C2376,77	ECJ1XC1H150J	C 15PF, J, 50V	2	
C2378-82	ECJ1XB1C104K	C 0.1UF, Z, 16V	5	
C2383	EEEHB1A101P	C 100PF, J, 10V	1	
C2384	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C2385	EEEHB1A101P	C 100PF, J, 10V	1	
C2386,87	EEEHP1H1R0R	C 1.0PF, J, 50V	2	
C2388	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C2389	EEEHB1A101P	C 100PF, J, 10V	1	
C2390	EEEHB1H100P	C 10PF, J, 50V	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C2391	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C2392,93	ECJ2VF1C105Z	C 1UF, Z, 16V	2	
C2394	EEEHB1H100P	C 10PF, J, 50V	1	
C2395,96	ECJ1XB1C104K	C 0.1UF, Z, 16V	2	
C2397	EEEHB1A101P	C 100PF, J, 10V	1	
C2398-03	ECJ1XB1C104K	C 0.1UF, Z, 16V	6	
C2404	ECJ1VB1C103K	C 0.010UF, K, 16V	1	
C2405,06	ECJ1VB0J225K	C 2.2UF, K, 6.3V	2	
C2407,08	F1J0J1060004	C 0.010UF, K, 16V	2	
C2409,10	ECJ1XC1H181J	C 180PF, J, 50V	2	
C2411-13	ECJ3XB1C106M	C 1.0UF, K, 16V	3	
C3001	ECJ1VF1H103Z	C 0.010UF, Z, 50V	1	
C3002	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	(J)
C3002	ECJ2XB1E104K	C 0.1UF, K, 25V	1	(HB)
C3003	ECJ2VF1C105Z	C 1UF, Z, 16V	1	(J)
C3003	EEEHP1A100R	E 10UF, 10V	1	(HB)
C3004	EEEHB1C470P	C 47PF, J, 16V	1	(J)
C3004	EEEHP1A100R	E 10UF, 10V	1	(HB)
C3005	ECJ2VF1C105Z	C 1UF, Z, 16V	1	(J)
C3005	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HB)
C3006	ECJ2VF1C105Z	C 1UF, Z, 16V	1	(J)
C3006	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HB)
C3007	EEEHB1C470P	C 47PF, J, 16V	1	(J)
C3007	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HB)
C3008	ECJ1VF1H104Z	C 0.1UF, Z, 50V	1	(J)
C3008	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HB)
C3009	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(J)
C3009	EEEHB1C470P	C 47PF, J, 16V	1	(HB)
C3010	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HB)
C3011	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(J)
C3011	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HB)
C3012	ECJ1VF1H103Z	C 0.010UF, Z, 50V	1	(J)
C3012	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HB)
C3013	ECJ1VF1H103Z	C 0.010UF, Z, 50V	1	(J)
C3013	ECJ2VF1C105Z	C 1UF, Z, 16V	1	(HB)
C3014	ECJ1VF1H103Z	C 0.010UF, Z, 50V	1	(J)
C3014	EEEHB1C470P	C 47PF, J, 16V	1	(HB)
C3015	ECJ1VF1H103Z	C 0.010UF, Z, 50V	1	(J)
C3015	ECJ1XC1H470J	C 47PF, J, 50V	1	(HB)
C3016	ECJ1VF1H103Z	C 0.010UF, Z, 50V	1	(J)
C3016	ECJ1XC1H220J	C 22PF, J, 50V	1	(HB)
C3017	ECJ1VF1H103Z	C 0.010UF, Z, 50V	1	(J)
C3017	ECJ1XC1H680J	C 68PF, J, 50V	1	(HB)
C3018	EEEHB1C470P	C 47PF, J, 16V	1	(J)
C3018	EEEHB0J330R	C 33PF, J, 6.3V	1	(HB)
C3019	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3019	ECJ3YB0J335K	C 33UF, J, 25V	1	(HB)
C3020	TCUY1C225KBM	C 2.2UF, 16V	1	
C3021	TCUY1C225KBM	C 2.2UF, 16V	1	(J)
C3021	ECJ2VF1C105Z	C 1UF, Z, 16V	1	(HB)
C3022	ECJ1VF1A105Z	C 1UF, Z, 10V	1	(HB)
C3022,23	TCUY1C225KBM	C 2.2UF, 16V	2	(J)
C3023	EEEHB0J101P	C 100PF, J, 6.3V	1	(HB)
C3024	ECJ3XB0J106M	C 10UF, M,6.3V	1	(HB)

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3024-31	TCYU1C225KBM	C 2.2UF, 16V	8	(J)
C3033	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C3040,41	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C3051-54	ECJ1XC1H561J	C 560PF, J, 50V	4	
C3055,56	ECJ2VF1C105Z	C 1UF, Z, 16V	2	
C3101	TCUY1C225KBM	C 2.2UF, K, 16V	1	
C3102	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3103	TCUY1C225KBM	C 2.2UF, 16V	1	(J)
C3103	ECJ1VF1A105Z	C 1UF, Z, 10V	1	(HB)
C3104	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3105	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3105 02	EEEHB0G221P	C 220PF, J, 4V	1	(HB)
C3106	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3106	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HB)
C3107	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3107	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HB)
C3108	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3108	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HB)
C3109,10	ECJ1XB1C104K	C 0.1UF, Z, 16V	2	(HB)
C3110	YCUY1C225KBM	C 2.2UF, K, 16V	1	(J)
C3111	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3111	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HB)
C3112	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3112	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HB)
C3113	EEEHB1C470P	C 47PF, J, 16V	1	(J)
C3113	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HB)
C3114	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	(J)
C3114	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HB)
C3115	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3115	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HB)
C3116	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3117,02	ECJ1XB1C104K	C 0.1UF, Z, 16V	2	
C3119	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3120	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3121	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3122	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C3123	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3124,02	ECJ1XB1C104K	C 0.1UF, Z, 16V	2	
C3126	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3127	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C3128	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3129	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3130	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3131-02	ECJ1XB1C104K	C 0.1UF, Z, 16V	4	
C3134	F2H0J102A010	C 1000UF, 6.3V	1	
C3135	F2H0J102A010	C 1000UF, 6.3V	1	(J)
C3135	ECJ1VB1C103K	C 0.010UF, K, 16V	1	(HB)
C3136	F2H0J102A010	C 1000UF, 6.3V	1	(J)
C3136	ECJ1XC1H330J	C 33PF, J, 50V	1	(HB)
C3137	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3138	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C3139	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3140	ECJ1XC1H101J	C 100PF, J, 50V	1	
C3141	ECJ1XB0J105K	C 1UF, K, 16V	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3142	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3142,43	TCUY1C225KBM	C 2.2UF, 16V	2	
C3144	TCUY1C225KBM	C 2.2UF, 16V	1	(J)
C3144	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HB)
C3145	EEEHB1C470P	C 47PF, J, 16V	1	
C3146	ECJ3YB1C225K	C 2.2UF, 16V	1	(J)
C3146	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HB)
C3147	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C3148	ECJ1XB0J105K	C 1UF, K, 16V	1	
C3149	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3150	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3150	ECJ1VB1C103K	C 0.010UF, K, 16V	1	(HB)
C3151	ECJ1XC1H330J	C 33PF, J, 50V	1	
C3152	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3153	ECJ1XC1H101J	C 100PF, J, 50V	1	
C3154	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3156	ECJ1XB0J105K	C 1UF, K, 16V	1	
C3157	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C3158	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3159	EEEHB0G221P	C 220PF, J, 4V	1	
C3160,61	ECJ1XB1C104K	C 0.1UF, Z, 16V	2	
C3162-66	ECJ1VF1A105Z	C 1UF, Z, 10V	5	
C3167-78	ECJ1XB1C104K	C 0.1UF, Z, 16V	12	
C3179	EEEHB0G221P	C 220PF, J, 4V	1	
C3180-83	ECJ1XB1C104K	C 0.1UF, Z, 16V	4	
C3185	ECJ1XC1H060D	C 6PF, D, 50V	1	
C3186	ECJ1XC1H470J	C 47PF, J, 50V	1	
C3188	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C3200	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C3201	F1J0J1060004	C 0.010UF, K, 16V	1	
C3202	F1J0J1060004	C 0.010UF, K, 16V	1	(J)
C3202	ECJ1VF1A105Z	C 1UF, Z, 10V	1	(HB)
C3203	F1J0J1060004	C 0.010UF, K, 16V	1	(J)
C3203	ECJ1VF1A105Z	C 1UF, Z, 10V	1	(HB)
C3204-06	ECJ1VF1A105Z	C 1UF, Z, 10V	3	
C3207	EEEHB0G221P	C 220PF, J, 4V	1	
C3208-14	ECJ1VF1A105Z	C 1UF, Z, 10V	7	
C3216,17	ECJ1VF1A105Z	C 1UF, Z, 10V	2	
C3218	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3253	ECJ1XB1H102K	C 1000UF, Z, 50V	1	
C3254	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3255	ECJ1XB1H102K	C 1000UF, Z, 50V	1	
C3256	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3257	ECJ1XB1H102K	C 1000UF, Z, 50V	1	
C3258	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3259	ECJ1XB1H102K	C 1000UF, Z, 50V	1	
C3260	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3261	EEEHB0G221P	C 220PF, J, 4V	1	
C3262	ECJ1XB1H102K	C 1000UF, Z, 50V	1	
C3263,64	ECJ1XB1C104K	C 0.1UF, Z, 16V	2	
C3265	EEEHB0G221P	C 220PF, J, 4V	1	
C3266	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3301	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C3308	EEEHB0G221P	C 220PF, J, 4V	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3309	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C3311	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3313	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C3316,17	ECJ1VF1A105Z	C 1UF, Z, 10V	2	
C3318-21	ECJ1XB1C104K	C 0.1UF, Z, 16V	4	
C3322,23	EEEHB0G221P	C 220PF, J, 4V	2	
C3324	EEEHB0J101P	C 100PF, J, 6.3V	1	
C3325	EEEHB1C470P	C 47PF, J, 16V	1	
C3327-30	ECJ1XB1C104K	C 0.1UF, Z, 16V	4	
C3404	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C3405	EEEHB1C470P	C 47PF, J, 16V	1	
C3409	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C3523	EEEHB1C470P	C 47PF, J, 16V	1	
C3524	ECJ2VF1H103Z	C 0.010UF, Z, 50V	1	
C3550	ECJ2VF1H103Z	C 0.010UF, Z, 50V	1	
C3551	EEEHB1C470P	C 47PF, J, 16V	1	
C3561,62	ECJ2VF1C105Z	C 1UF, Z, 16V	2	
C6015	TCUY1C105ZFN	C 1UF, 16V	1	
C6016,17	F1L1E4750004	C 4.7UF, 25V	2	
C6019	F1L1E4750004	C 4.7UF, 25V	1	
C6035	TCUY1C105ZFN	C 1UF, 16V	1	
C6036,37	F1L1E4750004	C 4.7UF, 25V	2	
C6039	F1L1E4750004	C 4.7UF, 25V	1	
C6060	ECJ3YB1E105K	C 1UF, K, 25V	1	
C6061,62	EEUFC1E221	E 220UF, 25V	2	
C6063	ECA1EM101	E 100UF, 25V	1	
C6064,65	TCUY1C105ZFN	C 1UF, 16V	2	
C6066-69	ECJ2XB1H103K	C 0.01UF, K, 50V	4	
C6080-82	ECQE2255JF	P 2.5UF, K,250V	3	
C6085-87	ECQE2255JF	P 2.5UF, K,250V	3	
C6100	F1L2J562A022	C 5600UF, K,6.3V	1	
C6130	TCUY1C105ZFN	C 1UF, 16V	1	
C6131,32	F1L1E4750004	C 4.7UF, 25V	2	
C6134	F1L1E4750004	C 4.7UF, 25V	1	
C6140	F1L2J562A022	C 5600UF, K,6.3V	1	
C6170-75	F2A2D221A022	E 220UF, 200V	6	
C6185	ECQE2255JF	P 2.5UF, K,250V	1	
C6200,01	ECA2CM101	E 100UF, 160V	2	
C6202	EEUFC1E221	E 220UF, 25V	1	
C6206	ECA2CM101	E 100UF, 160V	1	
C6209	ECA2CM101	E 100UF, 160V	1	
C6210-12	ECQE2255JF	P 2.5UF, K,250V	3	
C6214	F1L1E4750004	C 4.7UF, 25V	1	
C6215	EEUFC1E221	E 220UF, 25V	1	
C6217,18	F1L1E4750004	C 4.7UF, 25V	2	
C6221	F1L1E4750004	C 4.7UF, 25V	1	
C6223	F1L1E4750004	C 4.7UF, 25V	1	
C6224	EEUFC1E221	E 220UF, 25V	1	
C6225	F1L1E4750004	C 4.7UF, 25V	1	
C6226	TCUY1C105ZFN	C 1UF, 16V	1	
C6233	F1L1E4750004	C 4.7UF, 25V	1	
C6234	EEUFC1E221	E 220UF, 25V	1	
C6235	F1L1E4750004	C 4.7UF, 25V	1	
C6240	ECA2AHG101	E 100UF, 100V	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C6255	ECA2EHG470	E 47UF, 250V	1	
C6257	F1L1E4750004	C 4.7UF, 25V	1	
C6258	TCUY1C105ZFN	C 1UF, 16V	1	
C6260	ECJ3YB1E105K	C 1UF, K, 25V	1	
C6262	F1L1E4750004	C 4.7UF, 25V	1	
C6264	ECJ3YB1E105K	C 1UF, K, 25V	1	
C6265	F1L1E4750004	C 4.7UF, 25V	1	
C6266	EEUFC1E102	E 1000UF, 25V	1	
C6269	F2A2D221A022	E 220UF, 200V	1	
C6273	F1L1E4750004	C 4.7UF, 25V	1	
C6275	F1L1E4750004	C 4.7UF, 25V	1	
C6401-06	F2A2D221A022	E 220UF, 200V	6	
C6413,14	ECQE2255JF	P 2.5UF, K,250V	2	
C6421	ECJ3YB1E105K	C 1UF, K, 25V	1	
C6422	EEUFC1E221	E 220UF, 25V	1	
C6425,26	EEUFC1E470	E 47UF, 25V	2	
C6433-35	TCUY1C105ZFN	C 1UF, 16V	3	
C6436	ECJ3YB1E105K	C 1UF, K, 25V	1	
C6437	TCUY1C105ZFN	C 1UF, 16V	1	
C6440	TCUY1C105ZFN	C 1UF, 16V	1	
C6442	TCUY1C105ZFN	C 1UF, 16V	1	
C6444	TCUY1C105ZFN	C 1UF, 16V	1	
C6453	EEUFC1E221	E 220UF, 25V	1	
C6501-06	ECQE2255JF	P 2.5UF, K,250V	6	
C6513	F1L2J222A022	C 2200UF, K,6.3V	1	
C6515,16	F1L2J222A022	C 2200UF, K,6.3V	2	
C6531	F1L2J222A022	C 2200UF, K,6.3V	1	
C6533,34	F1L2J222A022	C 2200UF, K,6.3V	2	
C6536	F1L2J222A022	C 2200UF, K,6.3V	1	
C6559,60	F1L1E4750004	C 4.7UF, 25V	2	
C6562	F1L1E4750004	C 4.7UF, 25V	1	
C6563	TCUY1C105ZFN	C 1UF, 16V	1	
C6582	F1L1E4750004	C 4.7UF, 25V	1	
C6584,85	F1L1E4750004	C 4.7UF, 25V	2	
C6586	TCUY1C105ZFN	C 1UF, 16V	1	
C6587	F1L1E4750004	C 4.7UF, 25V	1	
C6589,90	F1L1E4750004	C 4.7UF, 25V	2	
C6591	TCUY1C105ZFN	C 1UF, 16V	1	
C6611	F1L1E4750004	C 4.7UF, 25V	1	
C6612,13	F1K2J102A014	C 1000UF, K,6.3V	2	
C6614	ECA2EHG470	E 47UF, 250V	1	
C6615	ECA1VM470	E 47UF, 35V	1	
C6616,17	F1L1E4750004	C 4.7UF, 25V	2	
C6618	TCUY1C105ZFN	C 1UF, 16V	1	
C6619	ECJ3YB1E105K	C 1UF, K, 25V	1	
C6620	TCUY1C105ZFN	C 1UF, 16V	1	
C6621	F1L1E4750004	C 4.7UF, 25V	1	
C6623	ECQE2105RKB	P 1UF, 250V	1	
C6624	F1L1E4750004	C 4.7UF, 25V	1	
C6626	F1L1E4750004	C 4.7UF, 25V	1	
C6627,28	TCUY1C105ZFN	C 1UF, 16V	2	
C6630-32	F1K2J102A014	C 1000UF, K,6.3V	3	
C6634,35	F1L1E4750004	C 4.7UF, 25V	2	
C6636,37	ECA2CM101	E 100UF, 160V	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C6638	F1L1E4750004	C 4.7UF, 25V	1	
C6639	TCUY1C105ZFN	C 1UF, 16V	1	
C6651	TCUY1C105ZFN	C 1UF, 16V	1	
C6653	TCUY1C105ZFN	C 1UF, 16V	1	
C6655,56	TCUY1C105ZFN	C 1UF, 16V	2	
C6657	ECJ2XC1H102J	C 1000PF, J, 50V	1	
C6658	ECA1HM101	E 100UF, 50V	1	
C6659-62	F1L1E4750004	C 4.7UF, 25V	4	
C6801	ECA2CM101	E 100UF, 160V	1	
C6806	ECA2EHG470	E 47UF, 250V	1	
C6807	ECA1HM221	E 220UF, 50V	1	
C6808,09	ECA2CM101	E 100UF, 160V	2	
C6812-14	F1K2J332A014	C 3300UF, K,6.3V	3	
C6816	F2A2G100A017	E 100UF, 400V	1	
C6818	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C6819	TCUY1C105ZFN	C 1UF, 16V	1	
C6820	ECJ2XB1H472K	C 4700PF, K, 50V	1	
C6821	EEUFC1E221	E 220UF, 25V	1	
C6822	ECJ2XB1H104K	C 0.1UF, K, 50V	1	
C6823	F1K2J222A014	C 2200UF, K,6.3V	1	
C6824	ECA2EHG470	E 47UF, 250V	1	
C6825	ECQE6223KF	P 0.022UF, K,400V	1	
C6826	ECJ2XB1H104K	C 0.1UF, K, 50V	1	
C6828	EEUFC1V151	E 150UF, 35V	1	
C6829	ECA2DHG330	E 33UF, 200V	1	
C6830	F1L1E4750004	C 4.7UF, 25V	1	
C6831	EEUFC1E470	E 47UF, 25V	1	
C6833	F1L1E4750004	C 4.7UF, 25V	1	
C6834	ECJ2XC1H102J	C 1000PF, J, 50V	1	
C6835	ECJ2XC1H471J	C 470PF, J, 50V	1	
C6836	ECKD3D221KBP	C 220PF, K, 2KV	1	
C6900	ECJ2XB1H222K	C 2200PF, K, 50V	1	
C6901-06	TCUY1C105ZFN	C 1UF, 16V	6	
C6908	ECJ2XB1H222K	C 2200PF, K, 50V	1	
C6909,10	F1L2E1040002	E 1000UF, 25V	2	
C6917,18	F1L2E1040002	E 1000UF, 25V	2	
C6920	ECJ2XB1H222K	C 2200PF, K, 50V	1	
C6921-26	TCUY1C105ZFN	C 1UF, 16V	6	
C6927,28	F1L2E1040002	E 1000UF, 25V	2	
C6930	ECJ2XB1H222K	C 2200PF, K, 50V	1	
C6937,38	F1L2E1040002	E 1000UF, 25V	2	
C7101,02	TCUY1C105ZFN	C 1UF, 16V	2	
C7103,04	ECJ3XB2A474K	C 0.47UF, 6.3V	2	
C7107	ECJ3XB2A474K	C 0.47UF, 6.3V	1	
C7111	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7125	TCUY1C105ZFN	C 1UF, 16V	1	
C7130	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C7136-38	ECJ1XB1C104K	C 0.1UF, Z, 16V	3	
C7139	TCUY1C105ZFN	C 1UF, 16V	1	
C7150	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7152	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7201	TCUY1C105ZFN	C 1UF, 16V	1	
C7203,04	TCUY1C105ZFN	C 1UF, 16V	2	
C7208	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C7212	TCUY1C105ZFN	C 1UF, 16V	1	
C7216	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C7221	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7224	TCUY1C105ZFN	C 1UF, 16V	1	
C7225	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C7231	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C7232-35	ECJ3XB2A474K	C 0.47UF, 6.3V	4	
C7238	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7240	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7250	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7274	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C7301	TCUY1C105ZFN	C 1UF, 16V	1	
C7304	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C7308,09	ECJ1XB1C104K	C 0.1UF, Z, 16V	2	
C7311,12	ECJ1XB1C104K	C 0.1UF, Z, 16V	2	
C7315,16	TCUY1C105ZFN	C 1UF, 16V	2	
C7323	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7326	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7329	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7339,40	TCUY1C105ZFN	C 1UF, 16V	2	
C7351	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7359-62	ECJ3XB2A474K	C 0.47UF, 6.3V	4	
C7401	TCUY1C105ZFN	C 1UF, 16V	1	
C7406	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C7412-15	ECJ1XB1C104K	C 0.1UF, Z, 16V	4	
C7418,19	TCUY1C105ZFN	C 1UF, 16V	2	
C7420-23	ECJ3XB2A474K	C 0.47UF, 6.3V	4	
C7428,29	ECJ1XC1H101J	C 100PF, J, 50V	2	
C7440,41	TCUY1C105ZFN	C 1UF, 16V	2	
C7452,53	ECJ1XC1H101J	C 100PF, J, 50V	2	
C7502	TCUY1C105ZFN	C 1UF, 16V	1	
C7511	TCUY1C105ZFN	C 1UF, 16V	1	
C7513	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C7519	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C7520	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7521	TCUY1C105ZFN	C 1UF, 16V	1	
C7522	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7527	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C7530	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C7538	TCUY1C105ZFN	C 1UF, 16V	1	
C7540,41	ECJ1XC1H101J	C 100PF, J, 50V	2	
C7543	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C7546	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7561-64	ECJ3XB2A474K	C 0.47UF, 6.3V	4	
C7601,02	TCUY1C105ZFN	C 1UF, 16V	2	
C7611-13	ECJ1XC1H101J	C 100PF, J, 50V	3	
C7624	TCUY1C105ZFN	C 1UF, 16V	1	
C7630	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C7635-37	ECJ1XB1C104K	C 0.1UF, Z, 16V	3	
C7640	TCUY1C105ZFN	C 1UF, 16V	1	
C7653-55	ECJ3XB2A474K	C 0.47UF, 6.3V	3	
C8001	EEEHB1C470P	C 47PF, J, 16V	1	
C8003	ECJ1VF1H104Z	C 0.1UF, Z, 50V	2	
C8005	ECJ1VF1H103Z	C 0.010UF, Z, 50V	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C8007	ECJ1XC1H101J	C 100PF, J, 50V	2	
C8009	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C8013	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C8015	ECJ3YF1A106Z	C 10UF, Z, 10V	1	
C8016	ECJ3YB1A475K	C 0.047UF, K, 10V	1	
C8019	ECJ1VB1H103K	C 0.001UF, K, 50V	2	
C8021	ECJ3VB1C474K	C 0.47UF, K, 16V	2	
C8023	ECJ1VB1H103K	C 0.001UF, K, 50V	4	
C8025	ECJ1VB1H103K	C 0.001UF, K, 50V	4	
C8027	ECJ3YB1C225K	C 0.022UF, K, 16V	1	
C8029	ECJ1VF1H103Z	C 0.010UF, Z, 50V	1	
C8030	EEEHB1C470P	C 47PF, J, 16V	1	
C8033	ECJ1XC1H102J	C 1000PF, J, 50V	2	
C8035	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C8036	ECJ1XC1H101J	C 100PF, J, 50V	2	
C8038	ECJ2XC1H102J	C 1000PF, J, 50V	2	
C8045	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C8049	ECJ2VF1H103Z	C 0.010UF, Z, 50V	2	
C8051	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C8070	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C8071	EEEHB1C470P	C 47PF, J, 16V	1	
C8072,73	ECJ3YF1A106Z	C 10UF, Z, 10V	2	
C8080-83	ECJ1XF1C104Z	C 0.1UF, Z, 16V	4	
C8084	TCUY1C105ZFN	C 1UF, 16V	1	
C8100	EEEHB1C470P	C 47PF, J, 16V	1	
C8101	ECJ1VF1H103Z	C 0.010UF, Z, 50V	1	
C8102,03	EEEHB1C470P	C 47PF, J, 16V	2	
C8105,06	EEEHB1C470P	C 47PF, J, 16V	2	
C8107	EEVHB1C471	E 470UF, 16V	1	
C8108,09	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C8111-13	ECJ1XF1C104Z	C 0.1UF, Z, 16V	3	
C8114	ECJ2VF1H103Z	C 0.010UF, Z, 50V	1	
C8115	EEEHB1C470P	C 47PF, J, 16V	1	
C8116	ECJ1VF1H103Z	C 0.010UF, Z, 50V	1	
C8120	EEEHB1E330P	C 33PF, J, 25V	1	
C8121	ECJ1XF1E104Z	C 0.1UF, Z, 25V	1	
C8122	EEEHB1C470P	C 47PF, J, 16V	1	
C8123	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C8181,82	ECJ1XC1H150J	C 15PF, J, 50V	2	
C8183	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C8185	EECS5R5H155	E 1.5UF, 5.5V	1	
C8200	EEEHB1C470P	C 47PF, J, 16V	1	
C9001,02	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9003	ECJ1VB1H822K	C 8200PF, K, 50V	1	
C9004	ECJ1VB1C823K	C 0.082UF, K, 16V	1	
C9006	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9007-09	ECJ2XB1H103K	C 0.01UF, K, 50V	3	
C9010	ECJ1XB1H102K	C 1000UF, Z, 50V	1	
C9011-13	ECJ1XF1C104Z	C 0.1UF, Z, 16V	3	
C9016	F1J0J106A013	C 0.010UF, K, 16V	1	
C9017,18	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9019	F1J0J106A013	C 0.010UF, K, 16V	1	
C9020	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9021	F1J0J106A013	C 0.010UF, K, 16V	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C9022	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9031	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9076	EEEHB1C470P	C 47PF, J, 16V	1	
C9081	TCUY1C105ZFN	C 1UF, 16V	1	
C9093	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9095	ECJ1XC1H220J	C 22PF, J, 50V	1	
C9101-05	ECJ1XF1C104Z	C 0.1UF, Z, 16V	5	
C9107,08	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9151,52	TCUY1C105ZFN	C 1UF, 16V	2	
C9155	EEEHB1C470P	C 47PF, J, 16V	1	
C9156	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9201	EEEHB1C470P	C 47PF, J, 16V	1	
C9202-13	ECJ1XB1C104K	C 0.1UF, Z, 16V	12	
C9214	EEEHB1C470P	C 47PF, J, 16V	1	
C9215-18	ECJ1XB1C104K	C 0.1UF, Z, 16V	4	
C9219-22	F1J0J106A013	C 0.010UF, K, 16V	4	
C9234	ECJ1VF1H103Z	C 0.010UF, Z, 50V	1	
C9235,36	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9241	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9373	ECJ1VF1H103Z	C 0.010UF, Z, 50V	1	
C9375	EEEHB1C470P	C 47PF, J, 16V	1	
C9377	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9379	EEEHB1C470P	C 47PF, J, 16V	1	
C9383	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9387-23	ECJ1XF1C104Z	C 0.1UF, Z, 16V	37	
C9424-40	ECJ1XB1C104K	C 0.1UF, Z, 16V	17	
C9441	EEEHB0G221P	C 220PF, J, 4V	1	
C9442	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C9443-46	ECJ1VF1H103Z	C 0.010UF, Z, 50V	4	
C9461-63	ECJ2VF1C105Z	C 1UF, Z, 16V	3	
C9464-66	F1J0J106A013	C 0.010UF, K, 16V	3	
C9467	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9515,16	EEVHB1C471	E 470UF, 16V	2	
C9594	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9599	ECJ2FB1E475M	C 4.7UF, K, 25V	1	
C9601	ECGRL0G680R	C 68PF, J, 4V	1	
C9602	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9603	ECGRL0G680R	C 68PF, J, 4V	1	
C9604	ECJ1XC1H101J	C 100PF, J, 50V	1	
C9606	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9608	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9609	ECJ1VB1H103K	C 0.001UF, K, 50V	1	
C9610	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9611	ECJ1VB1H103K	C 0.001UF, K, 50V	1	
C9612	ECJ1VF1H103Z	C 0.010UF, Z, 50V	1	
C9613	ECJ1XC1H101J	C 100PF, J, 50V	1	
C9614	ECJ1VB0J475K	C 4.7UF, K, 6.3V	1	
C9617,18	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9619	EEEHB1C470P	C 47PF, J, 16V	1	
C9620	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9622-24	F1J0J1060004	C 0.010UF, K, 16V	3	
C9626	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9627	EEEHB1C470P	C 47PF, J, 16V	1	
C9628	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C9630-32	F1J0J1060004	C 0.010UF, K, 16V	3	
C9634,35	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9637-42	ECJ3XF1C475Z	C 4.7UF, Z, 16V	6	
C9643,44	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9645	ECJ1VB1C105K	C 0.01UF, K, 16V	1	
C9646	ECJ1VB1C103K	C 0.010UF, K, 16V	1	
C9650,51	ECJ1XB1C104K	C 0.1UF, Z, 16V	2	
C9652	ECJ1XC1H150J	C 15PF, J, 50V	1	
C9653	ECJ1VC1H080C	C 8PF, C, 50V	1	
C9654	F1J0J1060004	C 0.010UF, K, 16V	1	
C9662-01	ECJ1XF1C104Z	C 0.1UF, Z, 16V	40	
C9702	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C9703-07	ECJ1XF1C104Z	C 0.1UF, Z, 16V	5	
C9708-11	ECJ1XB1C104K	C 0.1UF, Z, 16V	4	
C9712	ECJ1XB1H102K	C 1000UF, Z, 50V	1	
C9713	ECJ1XF1H102Z	C 1000PF, Z, 50V	1	
C9715-17	TCUY1C105ZFN	C 1UF, 16V	3	
C9718,19	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9721-23	ECJ1XF1C104Z	C 0.1UF, Z, 16V	3	
C9724	ECJ1VC1H270J	C 27PF, J, 50V	1	
C9725	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C9726	ECJ1XF1H102Z	C 1000PF, Z, 50V	1	
C9733	ECJ2FF1C475Z	C 0.047UF, Z, 16V	1	
C9734	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9735	ECJ2FF1C475Z	C 0.047UF, Z, 16V	1	
C9736,37	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9738	ECJ1XC1H101J	C 100PF, J, 50V	1	
C9739-41	ECJ1XB1C104K	C 0.1UF, Z, 16V	3	
C9742	EEEHB0G221P	C 220PF, J, 4V	1	
C9743-46	ECJ1XB1C104K	C 0.1UF, Z, 16V	4	
C9747	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9748-61	ECJ1XB1C104K	C 0.1UF, Z, 16V	14	
C9762	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9763	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C9764	EEEHB0G221P	C 220PF, J, 4V	1	
C9779	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C9780	F2H1E221A007	E 2.2UF, 25V	1	
C9781-83	F1J0J106A013	C 0.010UF, K, 16V	3	
C9784	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9785	F1J0J106A013	C 0.010UF, K, 16V	1	
C9981	EEEHB1C470P	C 47PF, J, 16V	1	
C9982	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9983	EEEHB0G221P	C 220PF, J, 4V	1	
C9984	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9985	F1J0J106A013	C 0.010UF, K, 16V	1	
C9986	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9988	F1J0J106A013	C 0.010UF, K, 16V	1	
C9989	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9991	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9992	EEEHB1C470P	C 47PF, J, 16V	1	
C9993	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9994	F1J0J106A013	C 0.010UF, K, 16V	1	
CA1-11	K1MN68BA0002	68P CONNECTOR	11	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
CB1-11	K1MN68BA0002	68P CONNECTOR	11	
CNPFC	B2P3-VH-B	CONNECTOR	1	
D1	K1KA20AA0335	20P CONNECTOR	1	
D3	K1KA40AA0009	40P CONNECTOR	1	
D4	K1KA14A00248	14P CONNECTOR	1	
D5	K1KA31A00007	31P CONNECTOR	1	
D10	K1KA12AA0105	12P CONNECTOR	1	
D20	K1KA20AA0008	20P CONNECTOR	1	
D25	K1KA20AA0009	20P CONNECTOR	1	
D31,32	K1MN55BA0076	55P CONNECTOR	2	
D33,34	K1MN68BA0076	68P CONNECTOR	2	
D302	RU1P	DIODE	1	
D303	RB550VA-30	DIODE	1	
D305,06	ST3D170	CLAMPER	2	
D307	RB550VA-30	DIODE	1	
D308	ERA91-02	DIODE	1	
D332	RB550VA-30	DIODE	1	
D334	RB550VA-30	DIODE	1	
D335	RU1P	DIODE	1	
D337	RU1P	DIODE	1	
D351	FCF06A40	DIODE	1	
D374	MA165	DIODE	1	
D401	RB550VA-30	DIODE	1	
D402	M1FS6	DIODE	1	
D403	M1FS6	DIODE	1	
D405	M1FS6	DIODE	1	
D451-54	RB085T60	DIODE	4	
D455	M1FS6	DIODE	1	
D456,57	MA111	DIODE	2	
D501	ST3D200	CLAMPER	1	
D504	ERA91-02	DIODE	1	
D511	ERA91-02	DIODE	1	
D511	MA2S111	DIODE	1	
D515	ERA91-02	DIODE	1	
D516	MA2S111	DIODE	1	
D551	RK49	DIODE	1	
D601	MA111	DIODE	1	
D602	S1WBA80	DIODE	1	⚠
D603	MA111	DIODE	1	
D605	M1F60	DIODE	1	
D606	RB550VA-30	DIODE	1	
D607	S3V60	DIODE	1	
D608,09	RB550VA-30	DIODE	2	
D612	EP01C	DIODE	1	
D613,14	ERA22-10	DIODE	2	
D796	MA2S111	DIODE	1	
D801	B0JCPD000026	DIODE	1	
D802,03	B0JCME000037	DIODE	2	
D850	MA165	DIODE	1	
D852	MA165	DIODE	1	
D854	MA165	DIODE	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D859	AK04	DIODE	1	
D1550	LNJ107W5PRW	LED	1	
D1551	MA8033L	ZENER DIODE	1	
D1554	MA8033L	ZENER DIODE	1	
D2301-03	B0JCME000037	DIODE	3	
D3001	MA111	DIODE	1	(J)
D3001	MA729	DIODE	1	(HB)
D3002	MA3100M	ZENER DIODE	1	
D3003,04	MA111	DIODE	2	
D3005	LNJ206R5ARA	LED	1	
D3007,08	MA111	DIODE	2	
D3061	MA728	DIODE	1	
D3501-04	MA3056M	ZENER DIODE	4	
D3507-10	MA8160H	ZENER DIODE	4	
D6000,01	B0HBSN000008	DIODE	2	
D6002	B0HDSM000005	DIODE	1	
D6010,11	B0HBSN000008	DIODE	2	
D6012	B0ECHP000003	DIODE	1	
D6013,14	B0HCMM000014	DIODE	2	
D6015	B0ECHP000003	DIODE	1	
D6016	B0HBSN000008	DIODE	1	
D6020,21	B0HBSN000008	DIODE	2	
D6030,31	B0HBSN000008	DIODE	2	
D6035,36	B0ECHP000003	DIODE	2	
D6060	MA111	DIODE	1	
D6061,62	MA8330M	ZENER DIODE	2	
D6063	LNJ301MPUJA	LED	1	
D6064	MA8051L	ZENER DIODE	1	
D6065,66	MA152	DIODE	2	
D6145-47	B0HBSN000008	DIODE	3	
D6190	B0ECHP000003	DIODE	1	
D6200	B0HDSM000005	DIODE	1	
D6203	B0HDSM000005	DIODE	1	
D6206-09	B0ECHP000003	DIODE	4	
D6210-12	B0HDSM000005	DIODE	3	
D6215	B0HDSM000005	DIODE	1	
D6221	B0JCME000037	DIODE	1	
D6225	B0JCME000037	DIODE	1	
D6226,27	B0ECHP000003	DIODE	2	
D6228	B0HDSM000005	DIODE	1	
D6240	B0HDSM000005	DIODE	1	
D6241,42	B0ECHP000003	DIODE	2	
D6250,51	B0JCME000037	DIODE	2	
D6257-59	B0ECHP000003	DIODE	3	
D6262	B0JCME000037	DIODE	1	
D6263,64	MA111	DIODE	2	
D6271	MA111	DIODE	1	
D6411	MA111	DIODE	1	
D6412	MA8051L	ZENER DIODE	1	
D6413,14	MA8330M	ZENER DIODE	2	
D6415	LNJ301MPUJA	LED	1	
D6416	MA111	DIODE	1	
D6417,18	MA8330M	ZENER DIODE	2	
D6419-21	MA111	DIODE	3	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D6422,23	MA8200M	ZENER DIODE	2	
D6501-04	B0HBSN000008	DIODE	4	
D6505	B0HCMM000014	DIODE	1	
D6506	B0ECHP000003	DIODE	1	
D6511,12	B0HBSN000008	DIODE	2	
D6517	MA8330M	ZENER DIODE	1	
D6518,19	MA111	DIODE	2	
D6521,22	B0HBSN000008	DIODE	2	
D6525-27	B0HBSN000008	DIODE	3	
D6561,62	B0ECHP000003	DIODE	2	
D6563	B0HBSN000008	DIODE	1	
D6564,65	B0ECHP000003	DIODE	2	
D6611,12	B0ECHP000003	DIODE	2	
D6613	MA8240M	ZENER DIODE	1	
D6615,16	MA111	DIODE	2	
D6617	MA8051L	ZENER DIODE	1	
D6618	B0HCMM000014	DIODE	1	
D6619	MA111	DIODE	1	
D6620	B0ECHP000003	DIODE	1	
D6622	MA8240M	ZENER DIODE	1	
D6623	B0JCME000037	DIODE	1	
D6624	MA111	DIODE	1	
D6625	B0HCKS000002	DIODE	1	
D6627	MA111	DIODE	1	
D6629,30	B0HCKS000002	DIODE	2	
D6631	MA111	DIODE	1	
D6632	B0JCME000037	DIODE	1	
D6633	MA111	DIODE	1	
D6634	MA8051L	ZENER DIODE	1	
D6635-37	MA8330M	ZENER DIODE	3	
D6638	MA111	DIODE	1	
D6639	B0HCMM000014	DIODE	1	
D6640-42	MA111	DIODE	3	
D6643	B0HCMM000014	DIODE	1	
D6644-51	MA8056H	ZENER DIODE	8	
D6652	MA111	DIODE	1	
D6653	MA8056H	ZENER DIODE	1	
D6654-57	B0JCME000037	DIODE	4	
D6658	B0HCKS000002	DIODE	1	
D6813,14	B0ECHP000003	DIODE	2	
D6815	MA111	DIODE	1	
D6817	MA111	DIODE	1	
D6818	B0JCKG000002	DIODE	1	
D6819	B0ECHP000003	DIODE	1	
D6820	MA111	DIODE	1	
D6821	B0JCME000037	DIODE	1	
D6822,23	B0HCKS000002	DIODE	2	
D6824	B0HCMM000014	DIODE	1	
D6825	B0BC01000044	ZENER DIODE	1	
D6826	B0ECHP000003	DIODE	1	
D6827	MA111	DIODE	1	
D6828	B0HCKS000002	DIODE	1	
D6829	MA111	DIODE	1	
D6830	B0HCKS000002	DIODE	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D6831,32	MA111	DIODE	2	
D6833-35	B0HCMM000014	DIODE	3	
D6840	B0ECHP000003	DIODE	1	
D6901,02	MA8056H	ZENER DIODE	2	
D6908,09	B0ECHP000003	DIODE	2	
D6911,12	MA8056H	ZENER DIODE	2	
D6918,19	B0ECHP000003	DIODE	2	
D7101-04	B0HCMM000014	DIODE	4	
D7107,08	B0HCMM000014	DIODE	2	
D7201-08	B0HCMM000014	DIODE	8	
D7209	B0HDSM000005	DIODE	1	
D7301-08	B0HCMM000014	DIODE	8	
D7405-12	B0HCMM000014	DIODE	8	
D7501-08	B0HCMM000014	DIODE	8	
D7509	B0HDSM000005	DIODE	1	
D7601-06	B0HCMM000014	DIODE	6	
D8001-04	MA111	DIODE	4	
D8010,11	MA153	DIODE	2	
D8180	MA111	DIODE	1	
D8181	MA8056-M	ZENER DIODE	1	
D8184,85	MA8056-M	ZENER DIODE	2	
D8200	MA3150M	ZENER DIODE	1	
D8201	MA111	DIODE	1	
D8203	MA3100M	ZENER DIODE	1	
D8204	MA111	DIODE	1	
D9300-03	MA152K	DIODE	4	
D9500,01	B0JCDD000002	DIODE	2	
D9502,03	B0JCPE000004	DIODE	2	
D9702-05	MA3033	ZENER DIODE	4	
D9707	MA728	DIODE	1	
D9711-13	MA152K	DIODE	3	
D9715	MA728	DIODE	1	
D9721	MA3036H	ZENER DIODE	1	
D9731	MA728	DIODE	1	
D9732-35	MA152K	DIODE	4	
FL3000-03	F1J1E1040022	LC FILTER	4	
FL3006-10	F1J1E1040022	LC FILTER	5	
FL3507-09	J0HABB000004	LC FILTER	3	
FL3510-17	TLK212T256AL	EMI FILTER	8	
FL7201,02	J0HABH000013	LC FILTER	2	
FL7501,02	J0HABH000013	LC FILTER	2	
FL9001	J0MAB0000175	LC FILTER	1	
FL9300-05	F1J1E1040022	LC FILTER	6	
FL9500	F1J1E1040022	LC FILTER	1	
FL9502-04	F1J1E1040022	LC FILTER	3	
FL9701-09	F1J1E1040022	LC FILTER	9	
H0	K1KA08AA0150	8P CONNECTOR	1	
H1	K1KA80B00037	80P CONNECTOR	1	
H37	K1KA03AA0190	3P CONNECTOR	1	
H37	K1KA03AA0190	3P CONNECTOR	1	
HX1	K1KB22A00036	22P CONNECTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC301	MR4020F2	INTEGRATED CIRCUIT	1	
IC401	F9222L	INTEGRATED CIRCUIT	1	⚠
IC501	MIP3E30MP	INTEGRATED CIRCUIT	1	
IC801-03	C0DBAMH00013	IC	3	
IC804	C0CBCAC00275	IC	1	
IC850	C0DAAZG00014	IC	1	
IC2301,02	C1BA00000383	IC	2	
IC2303	C1BB00001006	IC	1	
IC2305	C0ABBA000168	IC	1	
IC3001	MC14052BF	MOS IC (CMOS GATE ARRLY)	1	(J)
IC3001	C0JBAR000419	IC	1	(HB)
IC3002	C0JBBR000002	IC	1	(J)
IC3002	C0ABGB000001	IC	1	(HB)
IC3003	CXA1315M	LINEAR IC	1	(J)
IC3003	C0ABGB000001	IC	1	(HB)
IC3004	CXA1875AM	LINEAR IC	1	
IC3005	C1AB00002311	IC	1	
IC3007,08	C0JBAS000215	IC	2	
IC3101	C1AB00002238	IC	1	
IC3101	C0DBEZG00018	IC	1	
IC3102	C0DBZLB00003	IC	1	
IC3103	C1AB00002158	IC	1	
IC3104	PST9128NR	IC (LOGIC)	1	
IC3105	C0JBAZ002269	IC	1	
IC3150	C0JBAA000419	IC	1	
IC3201	C3HBKZ000002	IC	1	
IC3251	C0ZBZ0000967	IC	1	
IC3301	MM1065ZMR	LINEAR IC	1	
IC3302	C0DBEZG00018	IC	1	
IC3303	AN80L25RMS	IC	1	
IC3304	C0JBAZ002344	IC	1	
IC3305	JLC1562BF	MOS IC (MICON LSI) *	1	
IC3502	TVRN651	IC	1	
IC3699	C3EBGC000065	IC	1	
IC6000	AN16016A-VF	IC	1	
IC6020	AN16016A-VF	IC	1	
IC6060	C0JBAZ000005	IC	1	
IC6061,62	NJM2903M	INTEGRATED CIRCUIT	2	
IC6100	AN16016A-VF	IC	1	
IC6200,01	C0ZBZ0000895	IC	2	
IC6220,21	C0ZBZ0000895	IC	2	
IC6240	C0JBAZ000005	IC	1	
IC6250	AN16016A-VF	IC	1	
IC6251	C0ZBZ0001033	IC	1	
IC6252	AN1431M	LINEAR IC	1	
IC6411,12	C0JBAZ000005	IC	2	
IC6413	C0JBAA000174	IC	1	
IC6421	NJM2903M	INTEGRATED CIRCUIT	1	
IC6501-03	AN16016A-VF	IC	3	
IC6610	C0ZBZ0001033	IC	1	
IC6611	C0CBADC00075	IC	1	
IC6620	C0ZBZ0001033	IC	1	
IC6621	C0CBADC00075	IC	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC6630	C0ZBZ0001033	IC	1	
IC6640	C0ZBZ0001033	IC	1	
IC6650,51	C0JBAZ000994	IC	2	
IC6652	C0CBALC00010	IC	1	
IC6653,54	C0CBADC00075	IC	2	
IC6801	C0DAAMH00005	IC	1	
IC6812	AN1431M	LINEAR IC	1	
IC6814,15	AN1431M	LINEAR IC	2	
IC6816	C0CBALC00010	IC	1	
IC6817,18	AN1431M	LINEAR IC	2	
IC6901-06	C0HBC0000007	IC	6	
IC6911-16	C0HBC0000007	IC	6	
IC7102	C0JBAZ001120	IC	1	
IC7104-06	C0JBAZ001120	IC	3	
IC7201-05	C0JBAZ001120	IC	5	
IC7301-05	C0JBAZ001120	IC	5	
IC7401-05	C0JBAZ001120	IC	5	
IC7501-05	C0JBAZ001120	IC	5	
IC7602-04	C0JBAZ001120	IC	3	
IC7606	C0JBAZ001120	IC	1	
IC8001	MC14052BF	MOS IC (CMOS GATE ARRLY)	1	
IC8003	C1AA00000706	IC	1	
IC8005	C0JBAB000646	IC	1	
IC8007	C0JBAR000419	IC	1	
IC8009	C0JBAS000215	IC	1	
IC8014	C0ZBZ0000911	IC	1	
IC8016	C0JBAZ001934	IC	1	
IC8100	C0CBAKG00008	IC	1	
IC8181	C1DB00001208	IC	1	
IC9001	C0FBAD000102	IC	1	
IC9002	C0CBCBC00190	IC	1	
IC9003	C0JBAA000358	IC	1	
IC9031	C0JBAZ002198	IC	1	
IC9053	C0JBAA000358	IC	1	
IC9101	C0ZBZ0000764	IC	1	
IC9102	C0JBAZ002198	IC	1	
IC9103	C0JBAE000354	IC	1	
IC9151,52	C0JBAZ000856	IC	2	
IC9201	C1ZBZ0002917	IC	1	
IC9202	C0EBD0000038	IC	1	
IC9203	TVRN629	IC	1	
IC9301	C3ABQJ000031	IC	1	
IC9302	MN845121-A	IC	1	
IC9303	TVRN707	IC	1	
IC9304-06	C0JBAZ000856	IC	3	
IC9501	MN845111-A	IC	1	
IC9502	C1ZBZ0002769	IC	1	
IC9504	C3ABQJ000031	IC	1	
IC9506	C0DBAHE00017	IC	1	
IC9605	PST9128NR	IC (LOGIC)	1	
IC9607,08	C0DBEJG00001	IC	2	
IC9701	MN102H90MPD	IC	1	
IC9702	TVRN501-1	IC	1	PAVCCZ
IC9703	TVRN643	IC	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC9704	C0EBE0000447	IC	1	
IC9711	C0JBAE000354	IC	1	
IC9713	C0JBAS000215	IC	1	
IC9714	C0JBAZ000856	IC	1	
IC9715	C0JBAE000354	IC	1	
IC9953	C0DBEJG00001	IC	1	
IC9954	C0DBEGE00002	IC	1	
J1	K1KA20AA0335	20P CONNECTOR	1	
J2	K1KA06BA0047	6P CONNECTOR	1	
J3	K1KA40AA0009	40P CONNECTOR	1	
J4	K1KA11BA0051	11P CONNECTOR	1	
J5	K1KA21B00008	21P CONNECTOR	1	
J6	K1KA21B00009	21P CONNECTOR	1	
J7,J8	K1KA03BA0055	3P CONNECTOR	2	
J10	K1KA06BA0050	6P CONNECTOR	1	
J11-13	K1KB80B00024	80P CONNECTOR	3	
J14	K1KA22A00067	22P CONNECTOR	1	
J15	K1KA03BA0047	3P CONNECTOR	1	
JK3001	K1CB106B0027	CONNECTOR	1	
JK3002 02	K1QBB2AB0005	CONNECTOR	1	
JK3004	K2HA204B0097	JACK	1	
JK3509	K1FB109BA018	CONNECTOR	1	
JK3511	K1FB115BA020	CONNECTOR	1	
JK3513	K2HC103B0105	JACK	1	
JK8500	K4BC02B00013	TERMINAL	1	
JK8500 02	K4BC02B00013	TERMINAL	1	
JS801-16	ERJ6GEY0R00	M 0 OHM, 1/10W	16	
JS3301-06	ERJ3GEY0R00	M 0 OHM, 1/16W	6	
JS3308-10	ERJ3GEY0R00	M 0 OHM, 1/16W	3	
JS6200	ERD25V0T	M OHM, 1/10W	1	
JS6402	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
JS6801	ERD25V0T	M OHM, 1/10W	1	
JS8094-97	J0JCC0000100	CHIP INDUCTOR	4	
K601	DG12D1-0	RELAY	1	⚠
K602	DJ12D2-0	RELAY	1	⚠
L301-04	EXCELSR35	FERRITE BEAD INDUCTOR	4	
L401,02	EXCELSA35	BEAD CHOKE	2	
L452	EXCELDR35	FERRITE BEAD INDUCTOR	1	
L454,55	EXCELDR35	FERRITE BEAD INDUCTOR	2	
L501	EXCELSA35	BEAD CHOKE	1	
L503	EXCELDR35	FERRITE BEAD INDUCTOR	1	
L601,02	P3180207Z	FILTER CHOKE	2	⚠
L604	S3783106Z	CHOKE	1	
L606	ELF15N004A	FILTER CHOKE	1	⚠
L607,08	EXCELDR35	FERRITE BEAD INDUCTOR	2	
L611	EXCELDR35	FERRITE BEAD INDUCTOR	1	
L801	G1C470MA0078	INDUCTOR COIL	1	
L802	G1C101MA0078	INDUCTION COIL	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
L803	G1C220MA0078	INDUCTION COIL	1	
L804-11	J0JHC0000078	CHIP INDUCTOR	8	
L851	G0A680ZA0047	CHOKE COIL	1	
L1501-08	J0JHC0000078	CHIP INDUCTOR	8	
L2330,31	G0A221ZA0041	CHOKE COIL	2	
L3001	J0HABB000004	LC FILTER	1	(J)
L3001	J0HABB000003	LC FILTER	1	(HB)
L3002	G1C100K00020	INDUCTION COIL	1	(J)
L3002	J0HABB000004	LC FILTER	1	(HB)
L3003	G1C100K00020	INDUCTION COIL	1	(J)
L3003	J0HABB000004	LC FILTER	1	(HB)
L3004	J0HABB000003	LC FILTER	1	
L3005	G1C100K00020	INDUCTION COIL	1	(J)
L3005	ERJ3GEY0R00	M 0 OHM, 1/16W	1	(HB)
L3006	G1C100K00020	INDUCTION COIL	1	(J)
L3006	J0E8004B0008	LC FILTER	1	(HB)
L3007	G1C2R2K00006	INDUCTION COIL	1	
L3050	G1C100K00020	INDUCTION COIL	1	
L3051,52	ELJNA1R5JF	INDUCTION COIL	2	
L3102-04	ELJPA100KB	CHIP INDUCTOR	3	
L3140	J0JHC0000078	CHIP INDUCTOR	1	
L3201	ELJPA100KB	CHIP INDUCTOR	1	
L3251,52	ELJPA2R2MF	CHIP INDUCTOR	2	
L3305-08	ELKE103FA	NOISE FILTER	4	
L3526	ELJPA100KB	CHIP INDUCTOR	1	
L3555	ELJPA100KB	CHIP INDUCTOR	1	
L6000,01	J0JJC0000021	CHIP INDUCTOR	2	
L6010-12	G0AR60MA0003	CHOKE COIL	3	
L6014	G0ZZ00002183	PEAKING COIL	1	
L6020	J0JJC0000021	CHIP INDUCTOR	1	
L6030-33	G0A1R4MA0003	CHOKE COIL	4	
L6040	G0ZZ00002183	PEAKING COIL	1	
L6042	G0ZZ00002183	PEAKING COIL	1	
L6044	G0ZZ00002183	PEAKING COIL	1	
L6046	G0ZZ00002183	PEAKING COIL	1	
L6068	J0JJC0000021	CHIP INDUCTOR	1	
L6070	G0ZZ00002183	PEAKING COIL	1	
L6072	G0ZZ00002183	PEAKING COIL	1	
L6074	G0ZZ00002183	PEAKING COIL	1	
L6076	G0ZZ00002183	PEAKING COIL	1	
L6098	J0JJC0000021	CHIP INDUCTOR	1	
L6180-82	G0ZZ00002183	PEAKING COIL	3	
L6183,84	J0JJC0000021	CHIP INDUCTOR	2	
L6190	J0JJC0000021	CHIP INDUCTOR	1	
L6200-04	G0AR60MA0003	CHOKE COIL	5	
L6210-19	J0JJC0000021	CHIP INDUCTOR	10	
L6223-26	J0JJC0000021	CHIP INDUCTOR	4	
L6231-33	J0JJC0000021	CHIP INDUCTOR	3	
L6235,36	J0JJC0000021	CHIP INDUCTOR	2	
L6239-41	G0ZZ00002183	PEAKING COIL	3	
L6250	G0ZZ00002183	PEAKING COIL	1	
L6251,52	J0JJC0000021	CHIP INDUCTOR	2	
L6411,12	G0ZZ00002183	PEAKING COIL	2	
L6501-03	G0AR60MA0003	CHOKE COIL	3	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
L6507-10	G0A1R4MA0003	CHOKE COIL	4	
L6522	G0ZZ00002183	PEAKING COIL	1	
L6524	G0ZZ00002183	PEAKING COIL	1	
L6526	G0ZZ00002183	PEAKING COIL	1	
L6528	G0ZZ00002183	PEAKING COIL	1	
L6546	G0ZZ00002183	PEAKING COIL	1	
L6548	G0ZZ00002183	PEAKING COIL	1	
L6550	G0ZZ00002183	PEAKING COIL	1	
L6552	G0ZZ00002183	PEAKING COIL	1	
L6677-79	J0JJC0000021	CHIP INDUCTOR	3	
L6693	J0JJC0000021	CHIP INDUCTOR	1	
L6698,99	J0JJC0000021	CHIP INDUCTOR	2	
L6812,13	G0ZZ00002183	PEAKING COIL	2	
L6814-16	J0JJC0000021	CHIP INDUCTOR	3	
L7101-06	J0JJC0000011	CHIP INDUCTOR	6	
L7201-08	J0JJC0000011	CHIP INDUCTOR	8	
L7301-08	J0JJC0000011	CHIP INDUCTOR	8	
L7401-08	J0JJC0000011	CHIP INDUCTOR	8	
L7501-08	J0JJC0000011	CHIP INDUCTOR	8	
L7601-06	J0JJC0000011	CHIP INDUCTOR	6	
L8001	G1C100K00020	INDUCTION COIL	1	
L8003,05	G1C100K00020	INDUCTION COIL	2	
L8101-08	J0JHC0000078	CHIP INDUCTOR	8	
L8181	G1C100K00020	INDUCTION COIL	1	
L8501	G0A2R5H00003	CHOKE COIL	1	
L8502	G0A2R5H00003	CHOKE COIL	1	
L8502 02	G0A2R5H00003	CHOKE COIL	1	
L9204-06	J0JHC0000096	CHIP INDUCTOR	3	
L9401-03	J0JHC0000096	CHIP INDUCTOR	3	
L9500	G1C150MA0169	INDUCTION COIL	1	
L9501	G1A100ZA0007	CHOKE COIL	1	
L9502	G1C150KA0038	INDUCTION COIL	1	
L9601-04	J0JHC0000096	CHIP INDUCTOR	4	
NPM	IXMM564M-B-9	MODULE	1	⚠
NPM	IXMM564M-F-9	MODULE	1	⚠
NPM	IXMM564M-C-9	MODULE	1	⚠
NPM	MP00P4	MODULE	1	⚠
NPM	IXMM564M-G-9	MODULE	1	⚠
NPM	IXMM564M-E-9	MODULE	1	⚠
NPM	MP00P5	MODULE	1	⚠
NPM	IXMM564M-D-9	MODULE	1	⚠
NPM,PM	MP44S1	MODULE	2	⚠
P2	B6B-EH-A	CONNECTOR	1	
P5	B11B-PH-KS	CONNECTOR	1	
P9	B3P4VH-B-L	CONNECTOR	1	⚠
P10	B6B-PH-KS	CONNECTOR	1	
P11	B7B-EH-A	CONNECTOR	1	
P12	B10B-PH-KS	CONNECTOR	1	
P23	B3B-PH-KS	CONNECTOR	1	
P25	B20B-PHDSS	CONNECTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
P30	B5B-PH-KS	CONNECTOR	1	
PB30	K1KA05AA0193	5P CONNECTOR	1	
PB31	K1KA03AA0192	3P CONNECTOR	1	
PB33	K1KA03AA0192	3P CONNECTOR	1	
PB35	K1KA03AA0192	3P CONNECTOR	1	
PC6422-25	B3PBA0000223	IC	4	
PC6601	B3PBA0000234	IC	1	
PC6602	B3PBA0000233	IC	1	
PC6604	B3PBA0000234	IC	1	
PC6605	B3PBA0000233	IC	1	
PC6607	B3PBA0000233	IC	1	
PC6813	B3PBA0000223	IC	1	
PC6819	B3PBA0000223	IC	1	
Q332	2SD2098	TRANSISTOR	1	
Q333	2SB1386RT100	TRANSISTOR	1	
Q402	2SB766A	TRANSISTOR	1	
Q451-53	HAT1130R	FIELD EFFECT TRANSISTOR	3	
Q551	HAT1130R	FIELD EFFECT TRANSISTOR	1	
Q553,54	HAT1130R	FIELD EFFECT TRANSISTOR	2	
Q555	2SB709A	TRANSISTOR	1	
Q601	2SK3302	FIELD EFFECT TRANSISTOR	1	⚠
Q602	2SD2098	TRANSISTOR	1	
Q603	2SB1386RT100	TRANSISTOR	1	
Q605	2SB709A	TRANSISTOR	1	
Q606	2SD601A	TRANSISTOR	1	
Q850	2SC3311A	TRANSISTOR	1	
Q1540	2SD601A	TRANSISTOR	1	
Q2300	B1BBCF000028	TRANSISTOR	1	
Q2331	B1BBCF000028	TRANSISTOR	1	
Q2333,34	2SD601A	TRANSISTOR	2	
Q2370,71	2SB709A	TRANSISTOR	2	
Q2372	2SD601A	TRANSISTOR	1	
Q3001	2SB709A	TRANSISTOR	1	
Q3002	2SD601A	TRANSISTOR	1	(HB)
Q3002	2SD601A	TRANSISTOR	1	(J)
Q3003	2SD601A	TRANSISTOR	1	
Q3004	2SD601A	TRANSISTOR	1	
Q3005	2SD601A	TRANSISTOR	1	
Q3006,07	2SB709A	TRANSISTOR	2	
Q3023	2SD601A	TRANSISTOR	1	
Q3051,52	2SD601A	TRANSISTOR	2	
Q3101	2SD601A	TRANSISTOR	1	(J)
Q3101	2SB709A	TRANSISTOR	1	(HB)
Q3102	2SD1030	TRANSISTOR	1	(HB)
Q3102,03	2SD601A	TRANSISTOR	2	(J)
Q3531,32	2SD601A	TRANSISTOR	2	
Q6000,01	2SK3997000VE	FET	2	
Q6010	B1ABNF000006	TRANSISTOR	1	
Q6011	B1ADNF000006	TRANSISTOR	1	
Q6020	2SK3997000VE	FET	1	
Q6030	B1ABNF000006	TRANSISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q6031	B1ADNF000006	TRANSISTOR	1	
Q6060	2SD601A	TRANSISTOR	1	
Q6100-02	B1JADN000001	TRANSISTOR	3	
Q6120	B1ABNF000006	TRANSISTOR	1	
Q6121	B1ADNF000006	TRANSISTOR	1	
Q6140-42	B1JADN000001	TRANSISTOR	3	
Q6160	B1ABNF000006	TRANSISTOR	1	
Q6161	B1ADNF000006	TRANSISTOR	1	
Q6200	2SK326900L	FET	1	
Q6202	2SK326900L	FET	1	
Q6210	B1ABNF000006	TRANSISTOR	1	
Q6211	B1ADNF000006	TRANSISTOR	1	
Q6212	B1ABNF000006	TRANSISTOR	1	
Q6213	B1ADNF000006	TRANSISTOR	1	
Q6221	B1DFKL000001	TRANSISTOR	1	
Q6223	B1DFKL000001	TRANSISTOR	1	
Q6225	B1DFKL000001	TRANSISTOR	1	
Q6230	B1ABNF000006	TRANSISTOR	1	
Q6231	B1ADNF000006	TRANSISTOR	1	
Q6232	B1ABNF000006	TRANSISTOR	1	
Q6233	B1ADNF000006	TRANSISTOR	1	
Q6240	2SB1193000LB	TRANSISTOR	1	
Q6250,51	B1DFKM000002	TRANSISTOR	2	
Q6256	2SD1263A	TRANSISTOR	1	
Q6257	2SC1473A	TRANSISTOR	1	
Q6259	2SK326800L	FET	1	
Q6260	B1DFKM000002	TRANSISTOR	1	
Q6261	2SK620	FET	1	
Q6411	2SD601A	TRANSISTOR	1	
Q6412,13	2SK620	FET	2	
Q6501-03	B1JADN000001	TRANSISTOR	3	
Q6513-15	B1JADN000001	TRANSISTOR	3	
Q6531,32	2SK3997000VE	FET	2	
Q6537	2SK3997000VE	FET	1	
Q6551	B1ABNF000006	TRANSISTOR	1	
Q6552	B1ADNF000006	TRANSISTOR	1	
Q6559	B1ABNF000006	TRANSISTOR	1	
Q6560	B1ADNF000006	TRANSISTOR	1	
Q6567	B1ABNF000006	TRANSISTOR	1	
Q6568	B1ADNF000006	TRANSISTOR	1	
Q6571	B1ABNF000006	TRANSISTOR	1	
Q6572	B1ADNF000006	TRANSISTOR	1	
Q6577	2SD601A	TRANSISTOR	1	
Q6601	B1DEDS000001	TRANSISTOR	1	
Q6602	B1DEET000002	TRANSISTOR	1	
Q6604	B1DFFM000003	TRANSISTOR	1	
Q6611-18	B1DFJM000003	TRANSISTOR	8	
Q6630-35	B1DFKM000001	TRANSISTOR	6	
Q6650-52	B1DEDS000001	TRANSISTOR	3	
Q6654	B1DFFM000003	TRANSISTOR	1	
Q6655	2SD601A	TRANSISTOR	1	
Q6656	B1ADNF000006	TRANSISTOR	1	
Q6658,59	2SK620	FET	2	
Q6660	B1ABNF000006	TRANSISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q6661	B1ADNF000006	TRANSISTOR	1	
Q6664	2SD601A	TRANSISTOR	1	
Q6665	B1ABNF000006	TRANSISTOR	1	
Q6666,67	2SK620	FET	2	
Q6668	B1ABNF000006	TRANSISTOR	1	
Q6669	B1ADNF000006	TRANSISTOR	1	
Q6670	2SK620	FET	1	
Q6814	2SD1263A	TRANSISTOR	1	
Q6815	2SC1473A	TRANSISTOR	1	
Q6816	B1BBCJ000004	TRANSISTOR	1	
Q6817	2SD601A	TRANSISTOR	1	
Q6818	2SB0709A	TRANSISTOR	1	
Q6819	2SD1263A	TRANSISTOR	1	
Q6820	2SC1473A	TRANSISTOR	1	
Q6821	2SD814A	TRANSISTOR	1	
Q6822,23	2SD601A	TRANSISTOR	2	
Q8002	2SD601A	TRANSISTOR	1	
Q8010	2SD601A	TRANSISTOR	1	
Q8011	2SB709A	TRANSISTOR	1	
Q8012	2SD601A	TRANSISTOR	1	
Q8013	2SB709A	TRANSISTOR	1	
Q8019	2SD601A	TRANSISTOR	1	
Q8181-84	2SK2731T146	FET	4	
Q8200-02	2SD601A	TRANSISTOR	3	
Q9074	2SK2731T146	FET	1	
Q9076	2SD601A	TRANSISTOR	1	
Q9078	2SD601A	TRANSISTOR	1	
Q9201,02	2SD601A	TRANSISTOR	2	
Q9300-04	2SD601A	TRANSISTOR	5	
Q9500,01	B1MBCDA00002	TRANSISTOR	2	
Q9502	B1ABMD000004	TRANSISTOR	1	
Q9703-07	2SD601A	TRANSISTOR	5	
Q9708	2SK2731T146	FET	1	
Q9709-13	2SD601A	TRANSISTOR	5	
Q9951	2SD601A	TRANSISTOR	1	
R301	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R308	MPC5WR27KS	METAL PLATE RESISTOR	1	
R311	ERJ6GEYJ2R2	M 2.2 OHM,J,1/10W	1	
R312	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R313	ERJ14YJ100	M 10 OHM, J,1/4W	1	
R314	ERJ6GEYJ2R2	M 2.2 OHM,J,1/10W	1	
R320	ERJ14YJ753	M 75KOHM,J, 1/2W	1	
R321-23	MPC5WR68KS	METAL PLATE RESISTOR	3	
R325	ERJ6GEYJ333	M 33KOHM,J,1/10W	1	
R326-29	ERJ6GEYJ103	M 10KOHM,J,1/10W	4	
R330	ERJ12YJ220	M 22 OHM,J, 1/2W	1	
R339	ERJ12YJ330	M 33 OHM,J, 1/2W	1	
R340,41	ERJ12YJ333	M 33KOHM,J, 1/2W	2	
R342	ERJ6ENF5620	M 562 OHM, 1/10W	1	
R343	ERJ12YJ333	M 33KOHM,J, 1/2W	1	
R344	ERJ12YJ330	M 33 OHM,J, 1/2W	1	
R345	ERJ12YJ333	M 33KOHM,J, 1/2W	1	
R346,47	ERJ12YJ220	M 22 OHM,J, 1/2W	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R349	ERJ12YJ220	M 22 OHM,J, 1/2W	1	
R350-53	ERJ6ENF6192	M61.9KOHM, 1/10W	4	
R354,55	ERJ6ENF1303	M 130KOHM, 1/10W	2	
R356,57	ERJ14YJ753	M 75KOHM,J, 1/2W	2	
R358	ERG2SJ150	M 15 OHM, J, 2W	1	
R359	ERJ14YJ753	M 75KOHM,J, 1/2W	1	
R360	ERG2SJ150	M 15 OHM, J, 2W	1	
R361	ERJ14YJ753	M 75KOHM,J, 1/2W	1	
R364	ERG2SJ683	M 68KOHM, J, 2W	1	
R365	ERJ3GSYJ332	M 3.3KOHM,J,1/16W	1	
R366,67	ERJ6GEYJ682	M 6.8KOHM,J,1/10W	2	
R368	ERJ6ENF4702	M 47KOHM, 1/10W	1	
R369-71	ERJ6GEYJ823	M 82KOHM,J,1/10W	3	
R373-76	ERJ14YJ753	M 75KOHM,J, 1/2W	4	
R379	ERJ12YJ473	M 47KOHM,J, 1/2W	1	
R381	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R382,83	ERJ6GEYJ333	M 33KOHM,J,1/10W	2	
R384	ERJ6GEYJ393	M 39KOHM,J,1/10W	1	
R386-89	ERJ6ENF1052	M10.5KOHM, 1/10W	4	
R394	ERJ6ENF1052	M10.5KOHM, 1/10W	1	
R395,96	ERJ6GEYJ473	M 47KOHM,J,1/10W	2	
R397-99	ERJ14YJ753	M 75KOHM,J, 1/2W	3	
R401	ERJ3GSYJ103	M 10KOHM,J,1/16W	1	
R405	MPC5WR39KS	METAL PLATE RESISTOR	1	
R406	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R407	ERJ14YJ334	M 330KOHM, 1/2W	1	
R408	SG734K271	CHIP RESISTOR	1	
R410	ERJ14YJ332	M 33KOHM, J,1/4W	1	
R411	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R412	ERJ14YJ472	M 4.7KOHM,J, 1/2W	1	
R413,14	ERJ14YJ334	M 330KOHM, 1/2W	2	
R415,16	ERJ6GEYJ563	M 56KOHM,J,1/10W	2	
R426	ERJ14YJ470	M 47 OHM,J, 1/2W	1	
R429-31	ERJ6GEYJ563	M 56KOHM,J,1/10W	3	
R432	ERJ6GEYJ4R7	M 4.7 OHM,J,1/10W	1	
R456	ERJ6ENF4302	M 43KOHM, 1/10W	1	
R457,58	ERJ6GEYJ473	M 47KOHM,J,1/10W	2	
R459	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R460	ERG2SJ331	METAL OXIDE RESISTOR	1	
R473	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R475,76	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R480	ERG2SJ561	M 560 OHM, J, 2W	1	
R481	ERJ6ENF4302	M 43KOHM, 1/10W	1	
R482	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R508,09	ERJ12YJ100	M 10 OHM,J, 1/2W	2	
R510	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R558	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R559	ERJ12YJ151	M 150 OHM,J, 1/2W	1	
R561	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R562	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R563	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R564,65	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R602,03	5K150JA	WIREWOUND RESISTOR	2	
R606	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R607	ERJ6GEYJ334	M 330KOHM,J,1/10W	1	
R608	ERG3FJS820D	M 82 OHM, J, 3W	1	
R613,14	ERJ6GEYJ154	M 150KOHM,J,1/10W	2	
R615-17	MPC5WR22KS	METAL PLATE RESISTOR	3	
R618	ERG3FJS820D	M 82 OHM, J, 3W	1	
R620	ERJ12YJ680	M 68 OHM,J, 1/2W	1	
R621	ERJ12YJ151	M 150 OHM,J, 1/2W	1	
R623	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R624	ERJ6GEYJ183	M 18KOHM,J,1/10W	1	
R625	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R626	ERJ12YJ680	M 68 OHM,J, 1/2W	1	
R627	ERJ12YJ151	M 150 OHM,J, 1/2W	1	
R628	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R629	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R630	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R631	MPC5WR22KS	METAL PLATE RESISTOR	1	
R632,33	ERJ6GEYJ154	M 150KOHM,J,1/10W	2	
R634-37	ERJ6ENF2553	M 255KOHM, 1/10W	4	
R638	ERJ6ENF2493	M 249KOHM, 1/10W	1	
R640,41	ERJ6ENF5493	M 549KOHM, 1/10W	2	
R642	ERJ6ENF2493	M 249KOHM, 1/10W	1	
R644	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R646	ERJ6GEYJ154	M 150KOHM,J,1/10W	1	
R649	ERJ6ENF5493	M 549KOHM, 1/10W	1	
R653-55	ERJ6GEYJ183	M 18KOHM,J,1/10W	3	
R677	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R678	ERJ12YJ680	M 68 OHM,J, 1/2W	1	
R679	ERJ12YJ151	M 150 OHM,J, 1/2W	1	
R681,82	ERJ6GEYJ824	M 820KOHM,J,1/10W	2	
R683	ERC12ZGK185D	S 1.8MOHM, K,1/2W	1	
R801	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R802	ERJ3GEYJ223	M 22KOHM,J,1/16W	1	
R803	ERJ3EKF9102	M91.0KOHM, 1/16W	1	
R804	ERJ3GEYJ394	M 390KOHM,J,1/16W	1	
R805	ERJ3EKF8452	M84.5KOHM, 1/16W	1	
R806	ERJ3EKF1052	M10.5KOHM, 1/16W	1	
R808,09	ERJ6GEY0R00	M 0 OHM, 1/10W	2	
R810	ERJ3GEYJ223	M 22KOHM,J,1/16W	1	
R811	ERJ3EKF9102	M91.0KOHM, 1/16W	1	
R812	ERJ3GEYJ823	M 82KOHM,J,1/16W	1	
R813	ERJ3EKF4222	M42.2KOHM, 1/16W	1	
R814	ERJ3EKF1052	M10.5KOHM, 1/16W	1	
R815	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R816,17	ERJ6GEY0R00	M 0 OHM, 1/10W	2	
R818	ERJ3GEYJ223	M 22KOHM,J,1/16W	1	
R819	ERJ3EKF9102	M91.0KOHM, 1/16W	1	
R820	ERJ3GEYJ823	M 82KOHM,J,1/16W	1	
R821	ERJ3EKF2432	M24.3KOHM, 1/16W	1	
R822	ERJ3EKF1052	M10.5KOHM, 1/16W	1	
R823	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R824	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R825-27	ERJ3GEYJ822	M 8.2KOHM,J,1/16W	3	
R850	ER0S2CKF4701	M 4.7KOHM, F,1/4W	1	
R851	ERDS2TJ332	C 3.3KOHM, J,1/4W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R852	ERDS2TJ473	C 47KOHM, J,1/4W	1	
R853	ERDS2TJ471	C 470 OHM, J,1/4W	1	
R854	ERDS2TJ122	C 1.2KOHM, J,1/4W	1	
R856	ERDS2TJ122	C 1.2KOHM, J,1/4W	1	
R858	ERDS2TJ122	C 1.2KOHM, J,1/4W	1	
R862	ER0S2CHF7501	M 7.5KOHM, F,1/4W	1	
R863	ER0S2CKF9100	M 910 OHM, F,1/4W	1	
R1301,02	ERJ12YJ333	M 33KOHM,J, 1/2W	2	
R1500	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R1510	ERJ3GEYF222	M 2.2KOHM, 1/16W	1	
R1511	ERJ3GEYF302	M 3.0KOHM, 1/16W	1	
R1512	ERJ3GEYF472	M 4.7KOHM, 1/16W	1	
R1513	ERJ3GEYF822	M 8.2KOHM,J,1/16W	1	
R1550	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R1551	ERJ6GEYJ470	M 47 OHM,J,1/10W	1	
R1552	ERJ6GEYJ224	M 220KOHM,J,1/10W	1	
R1553	ERJ6GEYJ471	M 470 OHM,J,1/10W	1	
R1554	ERJ6GEYJ271	M 270 OHM,J,1/10W	1	
R2351-54	ERJ6GEYJ103	M 10KOHM,J,1/10W	4	
R2355-60	ERDS1FJ2R2	C 2.2 OHM, J,1/2W	6	
R2365	ERX1FJSR56D	M0.56 OHM, J, 1W	1	
R2367	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R2368,69	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R2370	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R2371,72	ERJ6GEYJ102	M 1KOHM,J,1/10W	2	
R2373	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2374	ERX1FJSR56D	M0.56 OHM, J, 1W	1	
R2376	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R2377	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2383	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R2384	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R2385	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R2386	ERJ6GEYJ562	M 5.6KOHM,J,1/10W	1	
R2387	ERJ6GEYJ182	M 1.8KOHM,J,1/10W	1	
R2388	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R2389-92	ERJ6GEYJ103	M 10KOHM,J,1/10W	4	
R2393	ERJ6GEYJ220	M 22 OHM,J,1/10W	1	
R2394-96	ERJ6GEYJ103	M 10KOHM,J,1/10W	3	
R2397	ERJ6GEYJ512	M 5.1KOHM,J,1/10W	1	
R2398	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R2399,00	ERJ6GEYJ220	M 22 OHM,J,1/10W	2	
R2404-07	ERJ6GEYJ103	M 10KOHM,J,1/10W	4	
R2408-11	ERJ6GEY0R00	M 0 OHM, 1/10W	4	
R2412	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R2413	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R2414	ERJ3GEYJ122	M 1.2KOHM,J,1/16W	1	
R2415	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R2416	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R2417	ERJ3GEYJ122	M 1.2KOHM,J,1/16W	1	
R2418,19	ERJ3GEYJ473	M 47KOHM,J,1/16W	2	
R2420	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R2421,22	ERJ3GEYJ183	M 18KOHM,J,1/16W	2	
R2423	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R3001	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3001	ERJ6ENF75R0	M 75 OHM, 1/10W	1	(HB)
R3002	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	(J)
R3002	ERJ6ENF75R0	M 75 OHM, 1/10W	1	(HB)
R3003	ERJ3GEYJ473	M 47KOHM,J,1/16W	1	(J)
R3003	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(HB)
R3004	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	(J)
R3004	ERJ6ENF75R0	M 75 OHM, 1/10W	1	(HB)
R3005	ERJ3GEYJ332	M 3.3KOHM,J,1/16W	1	(J)
R3005	ERJ6ENF75R0	M 75 OHM, 1/10W	1	(HB)
R3006	ERJ3GEYJ332	M 3.3KOHM,J,1/16W	1	(J)
R3006	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(HB)
R3007	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(J)
R3007	ERJ3GEYJ104	M 100KOHM,J,1/16W	1	(HB)
R3008	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(J)
R3008	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(HB)
R3009	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	(J)
R3009	TAJAAH0101JV	M 100 OHM,J,1/16W	1	(HB)
R3010	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	(J)
R3010	ERJ3GEYJ153	M 15KOHM,J,1/16W	1	(HB)
R3011	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	1	(J)
R3011	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(HB)
R3012	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	(J)
R3012	ERJ3GEYJ223	M 22KOHM,J,1/16W	1	(HB)
R3013	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	1	(J)
R3013	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	(HB)
R3014	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	(J)
R3014	ERJ3GEYJ223	M 22KOHM,J,1/16W	1	(HB)
R3015	J0JCC0000100	CHIP INDUCTOR	1	(J)
R3015	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	(HB)
R3016	J0JCC0000100	CHIP INDUCTOR	1	(J)
R3016	TAJAAH0101JV	M 100 OHM,J,1/16W	1	(HB)
R3017	J0JCC0000100	CHIP INDUCTOR	1	(J)
R3017 03	TAJAAH0101JV	M 100 OHM,J,1/16W	1	(HB)
R3018	J0JCC0000100	CHIP INDUCTOR	1	(J)
R3018	TAJAAH0101JV	M 100 OHM,J,1/16W	1	(HB)
R3019	J0JCC0000100	CHIP INDUCTOR	1	(J)
R3019	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	(HB)
R3020	J0JCC0000100	CHIP INDUCTOR	1	(J)
R3020	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	(HB)
R3021	J0JCC0000100	CHIP INDUCTOR	1	(J)
R3021	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	(HB)
R3022	J0JCC0000100	CHIP INDUCTOR	1	(J)
R3022	TAJAAH0101JV	M 100 OHM,J,1/16W	1	(HB)
R3023	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	(J)
R3023	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	(HB)
R3024	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	(J)
R3024	TAJAAH0101JV	M 100 OHM,J,1/16W	1	(HB)
R3025	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	(J)
R3025	TAJAAH0101JV	M 100 OHM,J,1/16W	1	(HB)
R3026	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(J)
R3026	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(HB)
R3027	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	(HB)
R3027,28	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	(J)
R3028	TAJAAH0101JV	M 100 OHM,J,1/16W	1	(HB)

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3029	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(J)
R3029 02	ERJ3EKF2200	M 220 OHM, 1/16W	1	(HB)
R3030	J0JCC0000100	CHIP INDUCTOR	1	(J)
R3030	ERJ3EKF3900	M 390 0HM, 1/16W	1	(HB)
R3031	J0JCC0000100	CHIP INDUCTOR	1	(J)
R3031	ERJ3EKF4700	M 470 OHM, 1/16W	1	(HB)
R3032	ERJ3EKF1200	M 120 OHM, 1/16W	1	(HB)
R3032,33	J0JCC0000100	CHIP INDUCTOR	2	(J)
R3033	TAJAAH0101JV	M 100 OHM,J,1/16W	1	(HB)
R3034	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R3035	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R3035	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	(HB)
R3036	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	(J)
R3036	ERJ6ENF1800	M 180 OHM, 1/10W	1	(HB)
R3037	J0JCC0000100	CHIP INDUCTOR	1	(J)
R3037	ERJ3EKF2200	M 220 OHM, 1/16W	1	(HB)
R3038	J0JCC0000100	CHIP INDUCTOR	1	(J)
R3038	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	1	(HB)
R3039	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R3040	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	(J)
R3040	ERJ3EKF3300	M 330 OHM, 1/16W	1	(HB)
R3041	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	(J)
R3041	ERJ3EKF1800	M 180 OHM, 1/16W	1	(HB)
R3042	J0JCC0000100	CHIP INDUCTOR	1	(J)
R3042	ERJ3EKF6801	M 6.8KOHM, 1/16W	1	(HB)
R3043	J0JCC0000100	CHIP INDUCTOR	1	(J)
R3043	ERJ3GEYJ561	M 560 OHM,J,1/16W	1	(HB)
R3044	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(J)
R3044	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	(HB)
R3045	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(J)
R3045	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	(HB)
R3046	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(J)
R3046	TAJAAH0101JV	M 100 OHM,J,1/16W	1	(HB)
R3047	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(J)
R3047	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	(HB)
R3048	ERJ3GEYJ334	M 330KOHM,J,1/16W	1	(J)
R3048	TAJAAH0101JV	M 100 OHM,J,1/16W	1	(HB)
R3049	ERJ3GEYJ334	M 330KOHM,J,1/16W	1	(J)
R3049	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	(HB)
R3050	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	(J)
R3050	ERJ6ENF75R0	M 75 OHM, 1/10W	1	(HB)
R3051	ERJ3GEYJ334	M 330KOHM,J,1/16W	1	(J)
R3051	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	(HB)
R3052	ERJ3GEYJ334	M 330KOHM,J,1/16W	1	(J)
R3052	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	(HB)
R3053	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	(J)
R3053	ERJ3GEYJ153	M 15KOHM,J,1/16W	1	(HB)
R3054	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	(J)
R3054	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	(HB)
R3055	ERJ3GEYJ334	M 330KOHM,J,1/16W	1	(J)
R3055	ERJ3GEYJ153	M 15KOHM,J,1/16W	1	(HB)
R3056	ERJ3GEYJ334	M 330KOHM,J,1/16W	1	(J)
R3056	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	(HB)
R3057	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	(J)

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3057	TAJAAH0101JV	M 100 OHM,J,1/16W	1	(HB)
R3058	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	(J)
R3058	TAJAAH0101JV	M 100 OHM,J,1/16W	1	(HB)
R3059	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	
R3060	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	(J)
R3060	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	(HB)
R3061	J0JCC0000100	CHIP INDUCTOR	1	(J)
R3061	ERJ3GEYJ561	M 560 OHM,J,1/16W	1	(HB)
R3062	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R3062	ERJ3GEYJ561	M 560 OHM,J,1/16W	1	(HB)
R3063	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	
R3064	ERJ6GEYJ560	M 56 OHM,J,1/10W	1	
R3065	ERJ6GEY0R00	M 0 OHM, 1/10W	1	(HB)
R3065-69	ERJ6GEYJ560	M 56 OHM,J,1/10W	5	(J)
R3070-75	ERJ6ENF75R0	M 75 OHM, 1/10W	6	
R3076-81	ERJ6GEYJ560	M 56 OHM,J,1/10W	6	
R3082	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	
R3088-93	ERJ6ENF75R0	M 75 OHM, 1/10W	6	
R3101	ERJ6ENF1800	M 180 OHM, 1/10W	1	(J)
R3101	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	(HB)
R3102	ERJ3GEY0R00	M 0 OHM, 1/16W	1	(HB)
R3102,03	ERJ6ENF1800	M 180 OHM, 1/10W	2	(J)
R3104	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	(HB)
R3104,05	ERJ6ENF1800	M 180 OHM, 1/10W	2	(J)
R3106	ERJ6ENF1800	M 180 OHM, 1/10W	1	(HB)
R3106	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(J)
R3110	ERJ6ENF4701	M 4.7KOHM, 1/10W	1	
R3111	ERJ6ENF1501	M 1.5KOHM, 1/10W	1	
R3114	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R3115	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R3116	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(J)
R3116	ERJ6GEY0R00	M 0 OHM, 1/10W	1	(HB)
R3117	J0JCC0000100	CHIP INDUCTOR	1	(J)
R3117	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	(HB)
R3118	ERJ6ENF8200	M 820 OHM, 1/10W	1	(J)
R3118	ERJ3GEY0R00	M 0 OHM, 1/16W	1	(HB)
R3119	ERJ3GEYJ121	M 120 OHM,J,1/16W	1	
R3120	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R3121	ERJ3GEYJ121	M 120 OHM,J,1/16W	1	
R3122	ERJ3EKF8201	M 8.2KOHM, 1/16W	1	
R3123	ERJ3EKF1502	M 15KOHM, 1/16W	1	
R3124	ERJ3EKF10R0	M 10 OHM, 1/16W	1	
R3125	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	(J)
R3125	ERJ3GEY0R00	M 0 OHM, 1/16W	1	(HB)
R3126	J0JCC0000100	CHIP INDUCTOR	1	
R3128,29	ERJ3GEYJ181	M 180 OHM,J,1/16W	2	(J)
R3129	ERJ6ENF12R0	M 12 OHM, 1/10W	1	(HB)
R3130,31	ERJ3GEYJ181	M 180 OHM,J,1/16W	2	
R3134	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R3134	ERJ6ENF10R0	M 10 OHM, 1/10W	1	
R3135	ERJ6ENF10R0	M 10 OHM, 1/10W	1	
R3136-39	ERJ3GEY0R00	M 0 OHM, 1/16W	4	
R3140	ERJ3GEYJ473	M 47KOHM,J,1/16W	1	(J)
R3140	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	(HB)

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3141	ERJ3GEYJ473	M 47KOHM,J,1/16W	1	(J)
R3141	ERJ3GEY0R00	M 0 OHM, 1/16W	1	(HB)
R3142,02	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R3143,44	ERJ3GEYJ101	M 100 OHM,J,1/16W	2	
R3145	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R3147	ERJ3GEYJ182	M 1.8KOHM,J,1/16W	1	
R3148	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	(J)
R3148	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	(HB)
R3149	ERJ3GEYJ182	M 1.8KOHM,J,1/16W	1	(J)
R3149	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	(HB)
R3150,51	ERJ3GEYJ101	M 100 OHM,J,1/16W	2	(J)
R3151	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	(HB)
R3152	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	(J)
R3152	ERJ3GEYJ561	M 560 OHM,J,1/16W	1	(HB)
R3153	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R3154,55	ERJ3GEYJ331	M 330 OHM,J,1/16W	2	
R3156	ERJ3GEYJ561	M 560 OHM,J,1/16W	1	
R3157	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R3158	ERJ3GEYJ182	M 1.8KOHM,J,1/16W	1	
R3159	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R3160	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	1	(J)
R3160	ERJ3EKF2701	M 2.7KOHM, 1/16W	1	(HB)
R3161	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	1	(J)
R3161	ERJ3EKF2701	M 2.7KOHM, 1/16W	1	(HB)
R3163	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R3163	ERJ3EKF2701	M 2.7KOHM, 1/16W	1	
R3164-67	ERJ3GEY0R00	M 0 OHM, 1/16W	4	
R3168	ERJ3EKF2000	M 200 OHM, 1/16W	1	
R3169-72	ERJ6ENF75R0	M 75 OHM, 1/10W	4	
R3173	ERJ3EKF2200	M 220 OHM, 1/16W	1	
R3174	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R3177	ERJ3EKF1401	M 1.4KOHM, 1/16W	1	
R3178	ERJ3EKF1101	M 1.1KOHM, 1/16W	1	
R3179	ERJ3EKF1401	M 1.4KOHM, 1/16W	1	
R3180	ERJ3EKF1101	M 1.1KOHM, 1/16W	1	
R3181	ERJ3EKF1401	M 1.4KOHM, 1/16W	1	
R3182	ERJ3EKF1101	M 1.1KOHM, 1/16W	1	
R3183	ERJ3EKF1401	M 1.4KOHM, 1/16W	1	
R3184	ERJ3EKF1101	M 1.1KOHM, 1/16W	1	
R3185	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R3188	ERJ6ENF39R0	M 39 OHM, 1/10W	1	
R3189	ERJ3GEY0R00	M 0 OHM, 1/16W	1	(HB)
R3189,90	ERJ6ENF39R0	M 39 OHM, 1/10W	2	(J)
R3192,93	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R3194,02	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R3195,96	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R3197,98	ERJ3GEYJ123	M 12KOHM,J,1/16W	2	
R3212-15	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	4	
R3216-19	ERJ6GEYJ3R3	M 3.3KOHM,J,1/10W	4	
R3230,31	ERJ6GEYJ102	M 1KOHM,J,1/10W	2	
R3251	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R3252	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R3253	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R3254,55	ERJ3GEYJ220	M 22 OHM,J,1/16W	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3300,01	ERJ3EKF1501	M 1.5KOHM, 1/16W	2	
R3302	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R3303,04	ERJ3GEYJ220	M 22 OHM,J,1/16W	2	
R3305	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R3307	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R3308,09	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R3313	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	
R3314,15	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R3319	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	
R3337,38	ERJ3GEYJ220	M 22 OHM,J,1/16W	2	
R3400	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R3508,09	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	2	
R3510,11	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R3529,30	ERJ6GEYJ184	M 180KOHM,J,1/10W	2	
R3547,48	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R3585,86	ERJ6GEYJ560	M 56 OHM,J,1/10W	2	
R3589	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R3590	ERJ6GEYJ560	M 56 OHM,J,1/10W	1	
R3591-93	ERJ6GEY0R00	M 0 OHM, 1/10W	3	
R3653	ERJ6GEYJ153	M 15KOHM,J,1/10W	1	
R3654	ERJ6GEYJ333	M 33KOHM,J,1/10W	1	
R3655	ERJ6GEYJ153	M 15KOHM,J,1/10W	1	
R3656	ERJ6GEYJ333	M 33KOHM,J,1/10W	1	
R3663,64	ERJ6GEYJ102	M 1KOHM,J,1/10W	2	
R3668	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R3672	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R3776,77	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R3778	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R3790,91	ERJ6GEY0R00	M 0 OHM, 1/10W	2	
R6000-03	ERJ14YJ5R6U	M 6.2OHM, 1/4W	4	
R6012	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6013	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6014,15	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R6020,21	ERJ14YJ5R6U	M 6.2OHM, 1/4W	2	
R6032	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6033	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6034,35	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R604,05	ERDS1TJ474	C 4.7KOHM, J,1/2W	2	
R6040-43	ERJ6GEYJ151	M 150 OHM,J,1/10W	4	
R6047,48	ERJ6GEYJ151	M 150 OHM,J,1/10W	2	
R6052	ERJ6ENF1182	M11.8KOHM, 1/10W	1	
R6053-58	ERJ6GEYJ151	M 150 OHM,J,1/10W	6	
R6060	EXB38V470J	RESISTOR ARRAY	1	
R6061	EXB38V472J	RESISTOR ARRAY	1	
R6062	EXB38V470J	RESISTOR ARRAY	1	
R6063	EXB38V472J	RESISTOR ARRAY	1	
R6064,65	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R6066	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R6067,68	ERJ6GEYJ152	M 1.5KOHM,J,1/10W	2	
R6069	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6070,71	ERJ6ENF3902	M 39KOHM, 1/10W	2	
R6072	ERJ6ENF7501	M 7.5KOHM, 1/10W	1	
R6073,74	ERJ6GEYJ224	M 220KOHM,J,1/10W	2	
R6075,76	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6079	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6080	ERJ6GEYJ474	M 470KOHM,J,1/10W	1	
R6081,82	ERJ6GEYJ104	M 100KOHM,J,1/10W	2	
R609-12	ERJ6ENF1213	M 121KOHM, 1/10W	4	
R6100-05	ERJ14YJ150U	M 15 OHM, J,1/4W	6	
R6124	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6125	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6126,27	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R613,14	ERJ6GEYJ154	M 150KOHM,J,1/10W	2	
R615-17	MPC5WR22KS	METAL PLATE RESISTOR	3	
R6137-39	ERJ6ENF6802	M 68KOHM, 1/10W	3	
R6140-45	ERJ14YJ150U	M 15 OHM, J,1/4W	6	
R6176	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6177	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6178,79	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R6190,91	ERX2FJSR22D	M0.22 OHM, J, 2W	2	
R6195,96	ERJ6GEYJ151	M 150 OHM,J,1/10W	2	
R6197,98	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R6199	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6200	ERJ6GEYJ5R6	M 5.6 OHM,J,1/10W	1	
R6202	ERJ6GEYJ5R6	M 5.6 OHM,J,1/10W	1	
R6210	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6211,12	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R6213	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6214,15	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R6216,17	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R6219	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6221	ERJ6GEYJ220	M 22 OHM,J,1/10W	1	
R6223	ERJ6GEYJ220	M 22 OHM,J,1/10W	1	
R6225	ERJ6GEYJ220	M 22 OHM,J,1/10W	1	
R6227	ERJ6GEYJ220	M 22 OHM,J,1/10W	1	
R6228	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6229	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6231	ERJ6GEYJ220	M 22 OHM,J,1/10W	1	
R6232	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6233,34	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R6235	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6236,37	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R6238,39	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R6240	ERJ6ENF6982	M69.8KOHM, 1/10W	1	
R6241	ERJ6ENF1182	M11.8KOHM, 1/10W	1	
R6242	ERJ6ENF4701	M 4.7KOHM, 1/10W	1	
R6243	ERJ6ENF3832	M38.3KOHM, 1/10W	1	
R6244	ERJ6ENF1002	M 10KOHM, 1/10W	1	
R6245	ERJ6ENF6981	M6.98KOHM, 1/10W	1	
R6246	ERJ6GEYJ221	M 220 OHM,J,1/10W	1	
R6247,48	ERF15ZJ181	W 180 OHM, 15W	2	
R6249	ERJ6ENF1182	M11.8KOHM, 1/10W	1	
R6250,51	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R6252	ERF15ZJ181	W 180 OHM, 15W	1	
R6253	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6254	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6255	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6257,58	ERJ6GEY0R00	M 0 OHM, 1/10W	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6259,60	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R6261	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R6263	ERJ6GEYJ151	M 150 OHM,J,1/10W	1	
R6264	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6265	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6266	ERJ6GEYJ470	M 47 OHM,J,1/10W	1	
R6267,68	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R6269	ERJ6GEYJ470	M 47 OHM,J,1/10W	1	
R6270	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6271,72	ERG2FJS101D	M 100 OHM, J, 2W	2	
R6274	ERG1FJS103D	M 10KOHM, J, 1W	1	
R6275	ERG2FJS123D	M 12KOHM, J, 2W	1	
R6276-78	ERJ6GEYJ223	M 22KOHM,J,1/10W	3	
R6280	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R6281	ERJ6ENF1201	M 1.2KOHM, 1/10W	1	
R6282-84	ERJ6GEYJ273	M 27KOHM,J,1/10W	3	
R6291	ERJ6GEYJ470	M 47 OHM,J,1/10W	1	
R6292	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R6293	ERJ6GEYJ562	M 5.6KOHM,J,1/10W	1	
R6298	EXB38V470J	RESISTOR ARRAY	1	
R6299	EXB38V472J	RESISTOR ARRAY	1	
R6361-64	ERJ6GEYJ151	M 150 OHM,J,1/10W	4	
R6367,68	ERJ6GEYJ151	M 150 OHM,J,1/10W	2	
R6375-77	ERJ6ENF6802	M 68KOHM, 1/10W	3	
R6378	ERJ6ENF6202	M 62KOHM, 1/10W	1	
R6379	ERJ6GEYJ563	M 56KOHM,J,1/10W	1	
R6382,83	ERX12SJ1R2	M 1.2 OHM, J,1/2W	2	
R6385	ERJ6GEYJ681	M 680 OHM,J,1/10W	1	
R6386	ERJ6GEYJ272	M 2.7KOHM,J,1/10W	1	
R6387	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R6388	ERG2FJS563D	M 56KOHM, J, 2W	1	
R6390	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R6411,12	ERX2FJSR22D	M0.22 OHM, J, 2W	2	
R6415	EXB38V470J	RESISTOR ARRAY	1	
R6416	EXB38V472J	RESISTOR ARRAY	1	
R6417	EXB38V470J	RESISTOR ARRAY	1	
R6418	EXB38V472J	RESISTOR ARRAY	1	
R6419	EXB38V470J	RESISTOR ARRAY	1	
R6420	EXB38V472J	RESISTOR ARRAY	1	
R6421	EXB38V470J	RESISTOR ARRAY	1	
R6422	EXB38V472J	RESISTOR ARRAY	1	
R6429,30	ERJ6GEYJ102	M 1KOHM,J,1/10W	2	
R6431,32	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R6433	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R6434,35	ERJ6GEYJ152	M 1.5KOHM,J,1/10W	2	
R6436	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6437,38	ERJ6ENF3902	M 39KOHM, 1/10W	2	
R6439	ERJ6ENF7501	M 7.5KOHM, 1/10W	1	
R6440	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R6441	ERJ14YJ203U	M 20KOHM, 1/2W	1	
R6444-48	ERJ6GEYJ471	M 470 OHM,J,1/10W	5	
R6449	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R6450	ERJ6GEYJ471	M 470 OHM,J,1/10W	1	
R6451	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6452,53	ERJ6GEYJ471	M 470 OHM,J,1/10W	2	
R6454	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R6455	ERJ14YJ163U	M 16KOHM, J,1/4W	1	
R6458	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R6459	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6460	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6461	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R6462	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6463	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R6464	ERJ6GEYJ182	M 1.8KOHM,J,1/10W	1	
R6465	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R6466	ERJ6GEYJ182	M 1.8KOHM,J,1/10W	1	
R6467	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6468	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6469	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6470	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6471,72	ERJ6GEYJ102	M 1KOHM,J,1/10W	2	
R6473,74	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	2	
R6475	ERJ6GEYF103	M 10KOHM,F,1/10W	1	
R6476	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R6477	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6478-83	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	6	
R6484	EXB38V470J	RESISTOR ARRAY	1	
R6488	EXB38V470J	RESISTOR ARRAY	1	
R6501-06	ERJ14YJ150U	M 15 OHM, J,1/4W	6	
R6525-30	ERJ14YJ150U	M 15 OHM, J,1/4W	6	
R6561	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6562	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R656-59	ERJ6GEYJ824	M 820KOHM,J,1/10W	4	
R6569	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6573	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6574	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6581	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6585,86	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R6601,02	ERX3FJS2R2D	M 2.2 OHM, J, 3W	2	
R6603-05	ERJ6GEYJ101	M 100 OHM,J,1/10W	3	
R6611	ERJ6GEYJ151	M 150 OHM,J,1/10W	1	
R6612	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6613	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R6614	ERJ6ENF1801	M 1.8KOHM, 1/10W	1	
R6615,16	ERJ6GEYJ102	M 1KOHM,J,1/10W	2	
R6617	ERJ6GEYJ470	M 47 OHM,J,1/10W	1	
R6618	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6619,20	ERJ6GEYJ105	M 1MOHM,J,1/10W	2	
R6621	ERJ6GEYJ680	M 68 OHM,J,1/10W	1	
R6622	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6625-32	ERJ6GEYJ470	M 47 OHM,J,1/10W	8	
R6662	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6664	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6667	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6668	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6669	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6671	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6674	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6675	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6686,87	ERJ14YJ5R6U	M 6.2OHM, 1/4W	2	
R6696-99	ERJ14YJ5R6U	M 6.2OHM, 1/4W	4	
R6711	ERJ6GEYJ151	M 150 OHM,J,1/10W	1	
R6712	ERJ6GEYJ470	M 47 OHM,J,1/10W	1	
R6713	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6716-21	ERJ6GEYJ100	M 10 OHM,J,1/10W	6	
R6735-37	ERJ6GEYJ224	M 220KOHM,J,1/10W	3	
R6738	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6739	ERJ6GEYJ202	M 2KOHM,J,1/10W	1	
R6740	ERJ6GEYJ203	M 20KOHM,J,1/10W	1	
R6741	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R6742	ERJ6GEYJ470	M 47 OHM,J,1/10W	1	
R6743	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6744,45	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	2	
R6746	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6747,48	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R6751-53	ERJ6GEYJ5R6	M 5.6 OHM,J,1/10W	3	
R6755	ERJ6GEYJ151	M 150 OHM,J,1/10W	1	
R6756	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6757	ERJ6GEYJ471	M 470 OHM,J,1/10W	1	
R6758	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6759	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6760	ERJ6GEYJ471	M 470 OHM,J,1/10W	1	
R6761	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6762	ERG1FJS101D	M 100 OHM, J, 1W	1	
R6763,64	ERJ6GEYJ224	M 220KOHM,J,1/10W	2	
R6804,05	ERJ6GEYJ563	M 56KOHM,J,1/10W	2	
R6806	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6807-09	ERJ6GEYJ104	M 100KOHM,J,1/10W	3	
R6810	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6823	ERG2FNJS8R2E	M 8.2 OHM, J, 2W	1	
R6824	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R6825,26	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R6827	ERG1FJS471D	M 470 OHM, J, 1W	1	
R6828,29	ERJ12YJ104U	M 100KOHM, 1/2W	2	
R6830	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6831,32	ERJ6ENF2203	M 220KOHM, 1/10W	2	
R6833	ERJ6ENF1432	M14.3KOHM, 1/10W	1	
R6834	ERJ6ENF5101	M 5.1KOHM, 1/10W	1	
R6835,36	ERJ12YJ1R0	M 1 OHM, J,1/2W	2	
R6837	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6838	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R6839	ERDS1FJ221	C 220 OHM, J,1/2W	1	
R6840,41	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	2	
R6842	ERJ6ENF1543	M 154KOHM, 1/10W	1	
R6843	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R6844	ERJ6ENF2202	M 2.2KOHM, 1/10W	1	
R6845	ERG2FNJS8R2E	M 8.2 OHM, J, 2W	1	
R6846	ERX3FJS8R2D	M 8.2 OHM, J, 3W	1	
R6847	ERG2FJS683D	M 68KOHM, J, 2W	1	
R6848	ERDS1FJ4R7	C 4.7 OHM, J,1/2W	1	
R6851	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6852	ERG2FJS101D	M 100 OHM, J, 2W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6853	ERJ12YJ153U	M 15KOHM, 1/2W	1	
R6854	ERJ14YJ433U	M 43KOHM, 1/2W	1	
R6855	ERJ6GEYJ563	M 56KOHM,J,1/10W	1	
R6856	ERJ6ENF6202	M 62KOHM, 1/10W	1	
R6857,58	ERJ6ENF2491	M2.49KOHM, 1/10W	2	
R6859	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R6860	ERG3FNJS8R2E	M 8.2 OHM, J, 3W	1	
R6861	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6862	ERJ6GEYJ153	M 15KOHM,J,1/10W	1	
R6863	ERJ6GEYJ123	M 12KOHM,J,1/10W	1	
R6864	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R6866	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R6867	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R6869	ERJ6ENF2202	M 2.2KOHM, 1/10W	1	
R6870	ERJ6ENF1002	M 10KOHM, 1/10W	1	
R6871	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6872,73	ERJ6GEYJ104	M 100KOHM,J,1/10W	2	
R6874	ERJ6GEYJ563	M 56KOHM,J,1/10W	1	
R6876	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R6886	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R6901-06	ERJ6GEYJ221	M 220 OHM,J,1/10W	6	
R6907,08	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R6909	ERJ6GEYJ224	M 220KOHM,J,1/10W	1	
R6910	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6911	ERJ6GEYJ224	M 220KOHM,J,1/10W	1	
R6912	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6921-26	ERJ6GEYJ221	M 220 OHM,J,1/10W	6	
R6927-30	ERJ6GEYJ103	M 10KOHM,J,1/10W	4	
R6931,32	ERJ6GEYJ224	M 220KOHM,J,1/10W	2	
R7101	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R7102	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R7104	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R7107	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R7109	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7111	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7113	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7115	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7116,17	ERJ3GEYJ221	M 220 OHM,J,1/16W	2	
R7123	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R7127	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7131	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7133	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R7134-37	ERJ3GEY0R00	M 0 OHM, 1/16W	4	
R7138-40	TAJAAH0470JV	M 47 OHM,J,1/16W	3	
R7141-46	EXB38V102J	RESISTOR ARRAY	6	
R7159-64	EXB38V470J	RESISTOR ARRAY	6	
R7171	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7184,85	ERJ6GEY0R00	M 0 OHM, 1/10W	2	
R7186	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R7187	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R7205,06	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	2	
R7208	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R7210,11	TAJAAH0101JV	M 100 OHM,J,1/16W	2	
R7215	ERJ6GEY0R00	M 0 OHM, 1/10W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R7225	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7227	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7230	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7235	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R7236,37	ERJ6GEY0R00	M 0 OHM, 1/10W	2	
R7238	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R7244	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7250	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7251	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R7252-55	EXB38V102J	RESISTOR ARRAY	4	
R7256	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R7257-60	EXB38V102J	RESISTOR ARRAY	4	
R7262	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7263	ERJ12Y0R00	M 0 OHM,J, 1/2W	1	
R7266	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7267	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R7268	ERJ12Y0R00	M 0 OHM,J, 1/2W	1	
R7270,71	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R7272,73	ERJ6GEY0R00	M 0 OHM, 1/10W	2	
R7274,75	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R7276,77	ERJ6GEY0R00	M 0 OHM, 1/10W	2	
R7280,81	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R7282,83	TAJAAH0470JV	M 47 OHM,J,1/16W	2	
R7288,89	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R7290,91	EXB38V470J	RESISTOR ARRAY	2	
R7294-99	EXB38V470J	RESISTOR ARRAY	6	
R7301,02	ERJ6GEY0R00	M 0 OHM, 1/10W	2	
R7303-10	EXB38V470J	RESISTOR ARRAY	8	
R7337-40	ERJ3GEY0R00	M 0 OHM, 1/16W	4	
R7341,42	TAJAAH0470JV	M 47 OHM,J,1/16W	2	
R7343	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R7345,46	TAJAAH0470JV	M 47 OHM,J,1/16W	2	
R7347	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7354,55	TAJAAH0101JV	M 100 OHM,J,1/16W	2	
R7360,61	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	2	
R7364,65	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	2	
R7366,67	TAJAAH0101JV	M 100 OHM,J,1/16W	2	
R7373,74	ERJ3GEYJ221	M 220 OHM,J,1/16W	2	
R7377,78	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	2	
R7381,82	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	2	
R7383,84	ERJ3GEYJ221	M 220 OHM,J,1/16W	2	
R7385	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R7386	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R7387	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R7392-99	EXB38V102J	RESISTOR ARRAY	8	
R7401	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7404	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7405-08	ERJ3GEY0R00	M 0 OHM, 1/16W	4	
R7409-12	TAJAAH0470JV	M 47 OHM,J,1/16W	4	
R7413-20	EXB38V470J	RESISTOR ARRAY	8	
R7444	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7446	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R7460,61	TAJAAH0101JV	M 100 OHM,J,1/16W	2	
R7464,65	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R7468,69	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	2	
R7470,71	TAJAAH0101JV	M 100 OHM,J,1/16W	2	
R7472	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R7477,78	ERJ3GEYJ221	M 220 OHM,J,1/16W	2	
R7481,82	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	2	
R7485,86	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	2	
R7487,88	ERJ3GEYJ221	M 220 OHM,J,1/16W	2	
R7490	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R7491	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R7492-99	EXB38V102J	RESISTOR ARRAY	8	
R7502	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R7503	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R7504	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7506	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7507,08	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R7509	ERJ12Y0R00	M 0 OHM,J, 1/2W	1	
R7511	ERJ12Y0R00	M 0 OHM,J, 1/2W	1	
R7514	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7516	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7517	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R7522,23	ERJ6GEY0R00	M 0 OHM, 1/10W	2	
R7525	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7527	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7528	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R7530	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7532	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7533	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R7534-41	EXB38V102J	RESISTOR ARRAY	8	
R7542-45	ERJ6GEY0R00	M 0 OHM, 1/10W	4	
R7546,47	TAJAAH0101JV	M 100 OHM,J,1/16W	2	
R7550-53	ERJ3GEY0R00	M 0 OHM, 1/16W	4	
R7554,55	TAJAAH0470JV	M 47 OHM,J,1/16W	2	
R7556-63	EXB38V470J	RESISTOR ARRAY	8	
R7564	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R7566	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7568	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7569	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R7592,93	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R7604	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R7605	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R7606	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R7607	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R7609	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7611	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7613	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7615	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7616,17	ERJ3GEYJ221	M 220 OHM,J,1/16W	2	
R7624	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R7628	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7632	ERJ12YJ2R2	M 2.2 OHM, J,1/2W	1	
R7634	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R7637-42	EXB38V470J	RESISTOR ARRAY	6	
R7643-46	ERJ3GEY0R00	M 0 OHM, 1/16W	4	
R7647-49	TAJAAH0470JV	M 47 OHM,J,1/16W	3	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R7650-55	EXB38V102J	RESISTOR ARRAY	6	
R7677	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7680	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7685	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7686	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R7687	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R8001-04	J0JCC0000100	CHIP INDUCTOR	4	
R8009-12	ERJ3GEYJ271	M 270 OHM,J,1/16W	4	
R8017-18	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	2	
R8021	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	1	
R8025	J0JCC0000100	CHIP INDUCTOR	1	
R8026	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R8029	ERJ6ENF3001	M 3KOHM, 1/10W	1	
R8031	ERJ6ENF2201	M 2.2KOHM, 1/10W	1	
R8033	ERJ3GEYJ104	M 100KOHM,J,1/16W	2	
R8035	ERJ6ENF3300	M 330 OHM, 1/10W	1	
R8036	ERJ6ENF1500	M 150 OHM, 1/10W	1	
R8037,39	ERJ6ENF4701	M 4.7KOHM, 1/10W	2	
R8041	ERJ3GEYJ183	M 18KOHM,J,1/16W	1	
R8045,46	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	2	
R8047	ERJ3GEYJ271	M 270 OHM,J,1/16W	1	
R8048	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	1	
R8050,51	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	2	
R8055,56	ERJ3GEYJ101	M 100 OHM,J,1/16W	2	
R8057	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R8058,59	ERJ3GEYJ101	M 100 OHM,J,1/16W	2	
R8065	D0GB911JA002	M 910 OHM,J,1/16W	1	
R80678	D0GB911JA002	M 910 OHM,J,1/16W	1	
R8069	ERJ6GEYJ681	M 680 OHM,J,1/10W	1	
R8072	J0JCC0000100	CHIP INDUCTOR	1	
R8089	ERJ3GEYJ181	M 180 OHM,J,1/16W	1	
R8093	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R8097-98	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R8000	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R8117-20	J0JCC0000100	CHIP INDUCTOR	4	
R8121,22	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	2	
R8124-27	ERJ6GEYJ101	M 100 OHM,J,1/10W	4	
R8129	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R831-35	ERJ3GEY0R00	M 0 OHM, 1/16W	5	
R8181	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	
R8182	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R8183,84	J0JCC0000100	CHIP INDUCTOR	2	
R8185,86	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	2	
R8187,88	ERJ6GEYJ560	M 56 OHM,J,1/10W	2	
R8189,90	ERJ6GEY0R00	M 0 OHM, 1/10W	2	
R8200	ERJ3GEYJ223	M 22KOHM,J,1/16W	1	
R8201	ERJ3GEYJ473	M 47KOHM,J,1/16W	1	
R8202,03	ERJ3GEYJ223	M 22KOHM,J,1/16W	2	
R8204	ERJ3GEYJ104	M 100KOHM,J,1/16W	1	
R8205	ERJ3GEYJ563	M 56KOHM,J,1/16W	1	
R8206	ERJ3GEYJ473	M 47KOHM,J,1/16W	1	
R8207	J0JCC0000100	CHIP INDUCTOR	1	
R9001-03	EXB2HVR000	RESISTOR ARRAY	3	
R9004	ERJ6GEY0R00	M 0 OHM, 1/10W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R9005	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	1	
R9006	ERJ3EKF6801	M 6.8KOHM, 1/16W	1	
R9007	ERJ3GEYJ390	M 39 OHM,J,1/16W	1	
R9008	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9009	ERJ3GEYJ390	M 39 OHM,J,1/16W	1	
R9010	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9011	ERJ3GEYJ390	M 39 OHM,J,1/16W	1	
R9012-14	ERJ3GEY0R00	M 0 OHM, 1/16W	3	
R9016-19	ERJ3GEY0R00	M 0 OHM, 1/16W	4	
R9020	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R9021	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9023	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R9028-30	ERJ3GEY0R00	M 0 OHM, 1/16W	3	
R9032	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9033	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9034	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9035-38	TAJAAH0101JV	M 100 OHM,J,1/16W	4	
R9039-42	ERJ3GEY0R00	M 0 OHM, 1/16W	4	
R9043,44	ERJ3GEYJ122	M 1.2KOHM,J,1/16W	2	
R9088	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9094	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9101,02	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R9104-07	ERJ3GEY0R00	M 0 OHM, 1/16W	4	
R9108	EXB38V103J	RESISTOR ARRAY	1	
R9109	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9110,11	EXB38V103J	RESISTOR ARRAY	2	
R9112	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9114,15	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9116-26	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	11	
R9127	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9129,30	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R9131,32	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9133,34	TAJAAH0470JV	M 47 OHM,J,1/16W	2	
R9137	TAJAAH0470JV	M 47 OHM,J,1/16W	1	
R9139	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9140	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9142	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9144	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9145	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R9149	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9151,52	D1HG1038A002	NETWORK RESISTER	2	
R9156,57	EXB2HV470JV	RESISTOR ARRAY	2	
R9158	ERJ3GEYJ473	M 47KOHM,J,1/16W	1	
R9159	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9171	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9175	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9179	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9205	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9207	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9209	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9211-20	TAJAAH0101JV	M 100 OHM,J,1/16W	10	
R9221,22	TAJAAH0470JV	M 47 OHM,J,1/16W	2	
R9223	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9225	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R9228,29	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9237	TAJAAH0470JV	M 47 OHM,J,1/16W	1	
R9238	EXB38V470J	RESISTOR ARRAY	1	
R9239	TAJAAH0470JV	M 47 OHM,J,1/16W	1	
R9240-44	ERJ3GEY0R00	M 0 OHM, 1/16W	5	
R9249	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9250-52	ERJ3GEY0R00	M 0 OHM, 1/16W	3	
R9256,57	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R9260	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9266	TAJAAH0470JV	M 47 OHM,J,1/16W	1	
R9267	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9271-73	EXB2HV470JV	RESISTOR ARRAY	3	
R9274-76	TAJAAH0470JV	M 47 OHM,J,1/16W	3	
R9277-79	EXB2HV101V	RESISTOR ARRAY	3	
R9280-82	TAJAAH0470JV	M 47 OHM,J,1/16W	3	
R9283	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9284	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9286	ERJ3GEYJ223	M 22KOHM,J,1/16W	1	
R9287,88	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9289	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9290	ERJ3GEYJ561	M 560 OHM,J,1/16W	1	
R9293-95	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	3	
R9296	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R9297	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9388,89	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R9390	EXB38V470J	RESISTOR ARRAY	1	
R9391-93	ERJ3GEY0R00	M 0 OHM, 1/16W	3	
R9394,95	TAJAAH0470JV	M 47 OHM,J,1/16W	2	
R9396,97	EXB38V470J	RESISTOR ARRAY	2	
R9400-03	ERJ3GEY0R00	M 0 OHM, 1/16W	4	
R9406,07	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R9411	EXB2HV470JV	RESISTOR ARRAY	1	
R9412	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9413-17	ERJ3GEY0R00	M 0 OHM, 1/16W	5	
R9418	EXB2HV470JV	RESISTOR ARRAY	1	
R9419	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	
R9420	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9421,22	ERJ3GEYJ220	M 22 OHM,J,1/16W	2	
R9423	EXB2HV470JV	RESISTOR ARRAY	1	
R9424	EXB38V470J	RESISTOR ARRAY	1	
R9425,26	ERJ3GEYJ220	M 22 OHM,J,1/16W	2	
R9427	EXB2HV470JV	RESISTOR ARRAY	1	
R9428	EXB38V470J	RESISTOR ARRAY	1	
R9429,30	EXB2HV470JV	RESISTOR ARRAY	2	
R9431	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9432	EXB2HV470JV	RESISTOR ARRAY	1	
R9433	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	
R9434	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9435	EXB2HV470JV	RESISTOR ARRAY	1	
R9436	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	
R9437-40	EXB2HV470JV	RESISTOR ARRAY	4	
R9441,42	ERJ3GEYJ220	M 22 OHM,J,1/16W	2	
R9443	EXB38V470J	RESISTOR ARRAY	1	
R9444	EXB2HV470JV	RESISTOR ARRAY	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R9445	TAJAAH0470JV	M 47 OHM,J,1/16W	1	
R9446,47	ERJ3GEYJ220	M 22 OHM,J,1/16W	2	
R9449	D1HG33080001	NETWORK RESISTER	1	
R9450	ERJ3GEYJ121	M 120 OHM,J,1/16W	1	
R9451	D1HG33080001	NETWORK RESISTER	1	
R9453	D1HG33080001	NETWORK RESISTER	1	
R9457	D1HG33080001	NETWORK RESISTER	1	
R9459	D1HG33080001	NETWORK RESISTER	1	
R9461	D1HG33080001	NETWORK RESISTER	1	
R9463	D1HG33080001	NETWORK RESISTER	1	
R9466-68	D1HG1038A002	NETWORK RESISTER	3	
R9469-72	ERJ3GEY0R00	M 0 OHM, 1/16W	4	
R9473	EXB38V470J	RESISTOR ARRAY	1	
R9474	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	
R9475	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9476	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9477	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9478	ERJ3GEYJ104	M 100KOHM,J,1/16W	1	
R9479	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9480	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9481	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9482	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9484	ERJ3GEYJ104	M 100KOHM,J,1/16W	1	
R9485	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9486	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9487	ERJ3GEYJ104	M 100KOHM,J,1/16W	1	
R9488	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9489	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9490	ERJ3GEYJ104	M 100KOHM,J,1/16W	1	
R9491	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9492	ERJ3GEYJ104	M 100KOHM,J,1/16W	1	
R9493	ERJ6ENF1101	M 1.1KOHM, 1/10W	1	
R9494	ERJ6ENF3161	M3.16KOHM, 1/10W	1	
R9495-98	ERJ6ENF1001	M 1KOHM, 1/10W	4	
R9499	TAJAAH0470JV	M 47 OHM,J,1/16W	1	
R9551,52	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R9553	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R9554	ERJ6ENF1001	M 1KOHM, 1/10W	1	
R9556	ERJ6ENF1001	M 1KOHM, 1/10W	1	
R9557	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R9558	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9559	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R9560	ERJ6ENF1001	M 1KOHM, 1/10W	1	
R9562	ERJ6ENF1001	M 1KOHM, 1/10W	1	
R9567,68	EXB2HV470JV	RESISTOR ARRAY	2	
R9569	EXB38V470J	RESISTOR ARRAY	1	
R9570,71	EXB2HV470JV	RESISTOR ARRAY	2	
R9592,93	ERJ3EKF8201	M 8.2KOHM, 1/16W	2	
R9594	ERJ3EKF3002	M 30KOHM, 1/16W	1	
R9595	ERJ3EKF1002	M 10KOHM, 1/16W	1	
R9596	ERJ3EKF2322	M23.2KOHM, 1/16W	1	
R9597	ERJ3EKF4702	M 47KOHM, 1/16W	1	
R9599	ERJ3EKF2402	M 24KOHM, 1/16W	1	
R9600	ERJ3GEYJ121	M 120 OHM,J,1/16W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R9603	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9604	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9606	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9607	TAJAAH0470JV	M 47 OHM,J,1/16W	1	
R9608	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R9609	TAJAAH0470JV	M 47 OHM,J,1/16W	1	
R9610	ERJL14KJ20M	M 20 OHM, J,1/4W	1	
R9611	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9612	ERJL14KJ20M	M 20 OHM, J,1/4W	1	
R9613	TAJAAH0470JV	M 47 OHM,J,1/16W	1	
R9614	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9616	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9618,19	ERJ6ENF1001	M 1KOHM, 1/10W	2	
R9620	ERJ6ENF1101	M 1.1KOHM, 1/10W	1	
R9621	ERJ6ENF3161	M3.16KOHM, 1/10W	1	
R9622,23	ERJ6ENF1001	M 1KOHM, 1/10W	2	
R9624-26	TAJAAH0470JV	M 47 OHM,J,1/16W	3	
R9627,28	ERJ3GEYJ220	M 22 OHM,J,1/16W	2	
R9629,30	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9633	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9636	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9638	TAJAAH0470JV	M 47 OHM,J,1/16W	1	
R9642	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9644	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9647	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9651	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9653,54	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R9656-59	ERJ3GEY0R00	M 0 OHM, 1/16W	4	
R9660,61	ERJ3GEYJ102	M 1KOHM,J,1/16W	2	
R9662	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9663-65	EXB38V470J	RESISTOR ARRAY	3	
R9668,69	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R9670	EXB38V470J	RESISTOR ARRAY	1	
R9671,72	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R9675-78	ERJ3GEY0R00	M 0 OHM, 1/16W	4	
R9679,80	EXB38V470J	RESISTOR ARRAY	2	
R9684-86	ERJ3GEY0R00	M 0 OHM, 1/16W	3	
R9687	EXB38V470J	RESISTOR ARRAY	1	
R9688	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9689	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9690	EXB38V470J	RESISTOR ARRAY	1	
R9696	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9697	EXB38V470J	RESISTOR ARRAY	1	
R9698-00	ERJ3GEY0R00	M 0 OHM, 1/16W	3	
R9701-03	ERJ3GEYJ103	M 10KOHM,J,1/16W	3	
R9705	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9706,07	ERJ3GEYJ332	M 3.3KOHM,J,1/16W	2	
R9708	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9709	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9710	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9711	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9713	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9714	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9715	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R9716	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9718	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9720	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9722,23	EXB2HV470JV	RESISTOR ARRAY	2	
R9725-28	ERJ3GEY0R00	M 0 OHM, 1/16W	4	
R9729	TAJAAH0470JV	M 47 OHM,J,1/16W	1	
R9730	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	1	
R9731	TAJAAH0470JV	M 47 OHM,J,1/16W	1	
R9732	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	1	
R9733	EXB38V220J	RESISTOR ARRAY	1	
R9734,35	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	2	
R9736	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9737	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	1	
R9738	ERJ3GEYJ330	M 33 OHM,J,1/16W	1	
R9740	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9741	D1HG33080001	NETWORK RESISTER	1	
R9742	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9743	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9744	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9746	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9747	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9748-50	ERJ3GEY0R00	M 0 OHM, 1/16W	3	
R9751,52	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9753	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9754	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9755	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9756	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9757	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9759	ERJ3GEYJ393	M 39KOHM,J,1/16W	1	
R9760	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9761	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9762	ERJ3GEYJ153	M 15KOHM,J,1/16W	1	
R9765	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9766	ERJ3GEYJ393	M 39KOHM,J,1/16W	1	
R9767	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9768	ERJ3GEYJ393	M 39KOHM,J,1/16W	1	
R9769	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9771	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9772,73	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R9774	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9775	ERJ3GEYJ123	M 12KOHM,J,1/16W	1	
R9777	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9778,79	TAJAAH0101JV	M 100 OHM,J,1/16W	2	
R9781	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9782	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9783	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9785	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9786	D1HG33080001	NETWORK RESISTER	1	
R9787,88	TAJAAH0101JV	M 100 OHM,J,1/16W	2	
R9791	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	1	
R9792	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9793	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9795	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9796	TAJAAH0101JV	M 100 OHM,J,1/16W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R9797	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9798	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9801	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9803	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9805	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9806	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9807	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9808	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9810	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9811	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9812	ERJ3GEYJ473	M 47KOHM,J,1/16W	1	
R9813	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9814	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9815	ERJ3GEYJ473	M 47KOHM,J,1/16W	1	
R9816	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9817	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9818	ERJ3GEYJ473	M 47KOHM,J,1/16W	1	
R9819	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9820,21	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	2	
R9822	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R9823	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9824	ERJ3GEYJ332	M 3.3KOHM,J,1/16W	1	
R9825	ERJ3GEYJ682	M 6.8KOHM,J,1/16W	1	
R9826	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9827,28	ERJ3GEYJ223	M 22KOHM,J,1/16W	2	
R9829	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9832	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9833	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9834	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9836,37	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9838	ERJ3GEYJ682	M 6.8KOHM,J,1/16W	1	
R9839	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9840	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9843	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9844	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	1	
R9845-48	TAJAAH0101JV	M 100 OHM,J,1/16W	4	
R9849	D1HG33080001	NETWORK RESISTER	1	
R9850	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9851	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9852	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9853-55	TAJAAH0101JV	M 100 OHM,J,1/16W	3	
R9857	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9859	D1HG33080001	NETWORK RESISTER	1	
R9860	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9861	ERJ3GEYJ332	M 3.3KOHM,J,1/16W	1	
R9863	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9864	ERJ3GEYJ332	M 3.3KOHM,J,1/16W	1	
R9865	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9866	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9868-70	ERJ3GEY0R00	M 0 OHM, 1/16W	3	
R9871	ERJ3GEYJ223	M 22KOHM,J,1/16W	1	
R9872,73	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9874	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9875	TAJAAH0101JV	M 100 OHM,J,1/16W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R9876-79	ERJ3GEY0R00	M 0 OHM, 1/16W	4	
R9880	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9881	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9882	EXB38VR000	RESISTOR ARRAY	1	
R9883	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9884	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9885	EXB38VR000	RESISTOR ARRAY	1	
R9888	D1HG33080001	NETWORK RESISTER	1	
R9890	D1HG33080001	NETWORK RESISTER	1	
R9891-93	ERJ3GEY0R00	M 0 OHM, 1/16W	3	
R9894	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9895-97	ERJ3GEY0R00	M 0 OHM, 1/16W	3	
R9901	D1HG33080001	NETWORK RESISTER	1	
R9907	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	1	
R9908	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9909	ERJ3GEYJ393	M 39KOHM,J,1/16W	1	
R9910	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9911	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9912	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9913	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9914	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9915	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9916	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9917	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9918	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9919	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9923	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9924	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9971	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R9973	ERJ6ENF2002	M 20KOHM, 1/10W	1	
R9974	ERJ6ENF3302	M 33KOHM, 1/10W	1	
R9975-77	ERJ6GEY0R00	M 0 OHM, 1/10W	3	
R9981	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R9982	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R9983	ERJ6ENF1601	M 1.6KOHM, 1/10W	1	
R9984	ERJ6ENF1001	M 1KOHM, 1/10W	1	
R9985	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R9986	ERJ3GEYJ153	M 15KOHM,J,1/16W	1	
R9991,92	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9993	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9995,96	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
RF601	HUF5K100J14	THERMAL RESISTOR	1	⚠
RM001	PNA4701M05TV	REMOCO RECEIVER	1	
RTL	TNPA3003	CIRCUIT BOARD H3	1	⚠
RTL	TNPA3003	CIRCUIT BOARD H3	1	⚠
RTL	TNPA3630AB	CIRCUIT BOARD J	1	⚠
RTL	TZTNP030VAS	CIRCUIT BOARD HX	1	PAVCCZ ⚠
RTL	TXNHA10RBS	CIRCUIT BOARD HA	1	⚠
RTL	TNPA2844AB	CIRCUIT BOARD HB	1	PAVCCZ ⚠
RTL	ETXMM564MEK	CIRCUIT BOARD P	1	⚠

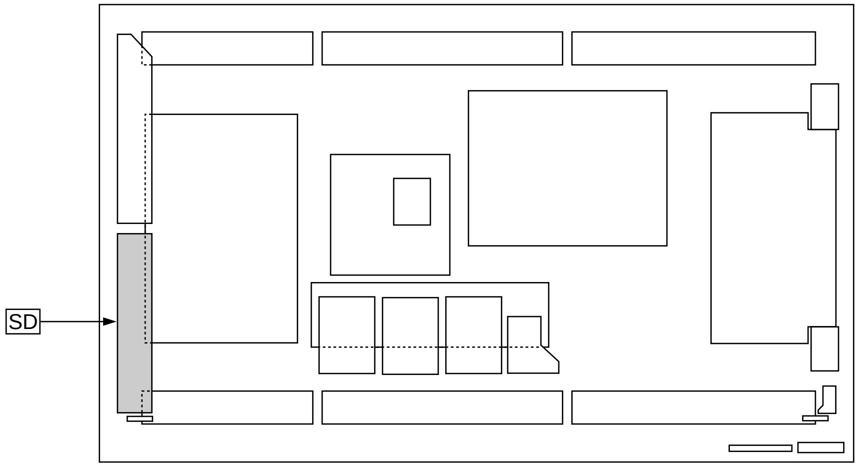
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
RTL	TNPA3561	CIRCUIT BOARD C1	1	⚠
RTL	TNPA3562	CIRCUIT BOARD C2	1	⚠
RTL	TNPA3563	CIRCUIT BOARD C3	1	⚠
RTL	TNPA3564	CIRCUIT BOARD C4	1	⚠
RTL	TNPA3565	CIRCUIT BOARD C5	1	⚠
RTL	TXNC610XQS	CIRCUIT BOARD C6	1	⚠
RTL	TZTNP01YSSE	CIRCUIT BOARD D	1	PAVCCZ ⚠
RTL	TNPA3655	CIRCUIT BOARD PB	1	⚠
RTL	TNPA3567	CIRCUIT BOARD SC	1	⚠
RTL	TNPA3220AB	CIRCUIT BOARD SD	1	⚠
RTL	TNPA3568	CIRCUIT BOARD SS	1	⚠
RTL	TNPA3559	CIRCUIT BOARD SS2	1	⚠
RTL	TNPA3560	CIRCUIT BOARD SS3	1	⚠
RTL	TNPA3219AB	CIRCUIT BOARD SU	1	⚠
RTL	TNPA3641	CIRCUIT BOARD V2	1	⚠
RTL	TNPA3640	CIRCUIT BOARD V1	1	⚠
RTL	TNPA3642	CIRCUIT BOARD S1	1	⚠
S34	K1KA03AA0193	3P CONNECTOR	1	
SC2	K1KA06AA0192	6P CONNECTOR	1	
SC20	K1KA20AA0008	20P CONNECTOR	1	
SC23	K1KA03AA0193	3P CONNECTOR	1	
SC41,42	K1ML80B00001	80P CONNECTOR	2	
SC45,46	K1KA10A00431	10P CONNECTOR	2	
SC90	K1KA06AA0192	6P CONNECTOR	1	
SD1-D4	K1MN96B00004	96P CONNECTOR	4	
SD46	K1KA10B00209	10P CONNECTOR	1	
SS11	K1KA07AA0192	7P CONNECTOR	1	
SS12	K1KA10AA0194	10P CONNECTOR	1	
SS20,21	K1KA07A00170	7P CONNECTOR	2	
SS22,23	K1KB07AA0087	7P CONNECTOR	2	
SS34	K1KA03AA0193	3P CONNECTOR	1	
SS35	K1KA10AA0194	10P CONNECTOR	1	
SS42	K1KA10AA0194	10P CONNECTOR	1	
SS44	K1KA20AA0009	20P CONNECTOR	1	
SS51-56	K1MN13B00020	13P CONNECTOR	6	
SU1-U4	K1MN96B00004	96P CONNECTOR	4	
SU45	K1KA10B00209	10P CONNECTOR	1	
SW061	K0F162B00002	SWITCH	1	
SW1550-54	EVQPLHA15	SWITCH	5	⚠
T301	ETB28BF1Z1AH	TRANSFORMER	1	⚠
T401	ETB57LZ135AD	TRANSFORMER	1	⚠
T501	ETB25KA1A8AD	TRANSFORMER	1	⚠
T6801	ETS28AU2S9AC	SWITCHING TRANSFORMER	1	
T6802	ETS13TB199AP	SWITCHING TRANSFORMER	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
TH351	PRFCBB471	POSISTOR	1	
V2	K1KA06BA0047	6P CONNECTOR	1	
V15	K1KA03BA0047	3P CONNECTOR	1	
VR351,52	EVMEASA00B54	VARIABLE RESISTOR	2	
VR451	EVMEASA00B53	VARIABLE RESISTOR	1	
VR6250	EVMEASA00B14	CONTROL 10KOHMB 0.3W	1	
VR6602	EVMEASA00B14	CONTROL 10KOHMB 0.3W	1	
VR6801	EVMEASA00B14	CONTROL 10KOHMB 0.3W	1	
X2301	H0J184500020	CRYSTAL	1	
X3101	H0J202500002	CRYSTAL	1	
X8181	H0J327200114	CRYSTAL	1	
X9500	H0J200500038	CRYSTAL	1	
X9701	H0J400400017	CRYSTAL	1	
Z501	ERZVGAD471	VARISTOR	1	⚠
Z601	ERZVGAD751	VARISTOR	1	⚠
Z603	ERZVGAD471	VARISTOR	1	⚠
ZA001	K4CD01000013	TERMINAL	1	
ZA007	K4CD01000013	TERMINAL	1	
ZA3001-08	K4CD01000013	TERMINAL	8	
ZA6101-03	K4CD01000013	TERMINAL	3	
ZA6401-03	K4CD01000013	TERMINAL	3	
ZA7101-05	K4CD01000013	TERMINAL	5	
ZA7201-05	K4CD01000013	TERMINAL	5	
ZA7301-05	K4CD01000013	TERMINAL	5	
ZA7401-05	K4CD01000013	TERMINAL	5	
ZA7501-05	K4CD01000013	TERMINAL	5	
ZA7601-05	K4CD01000013	TERMINAL	5	
ZD301,02	MA8360	ZENER DIOED	2	
ZD303	MA8360	ZENER DIOED	1	
ZD304-06	MA8360	ZENER DIOED	3	
ZD307	MA8330	ZENER DIODE	1	
ZD308	MA8330	ZENER DIODE	1	
ZD309	MA4051N	ZENER DIODE	1	
ZD310	MA4020	ZENER DIODE	1	
ZD311,12	MA4270N	ZENER DIODE	2	
ZD402	PTZ24B	ZENER DIODE	1	
ZD403	MA8056	ZENER DIODE	1	
ZD404	MA8360	ZENER DIOED	1	
ZD405-09	MA8360	ZENER DIOED	5	
ZD410	MA4220N	ZENER DIODE	1	
ZD413	MA4270N	ZENER DIODE	1	
ZD451	1ZB18	ZENER DIODE	1	
ZD510	MA8270	ZENER DIODE	1	
ZD601	MA4220N	ZENER DIODE	1	
ZD669	MA8220	ZENER DIODE	1	

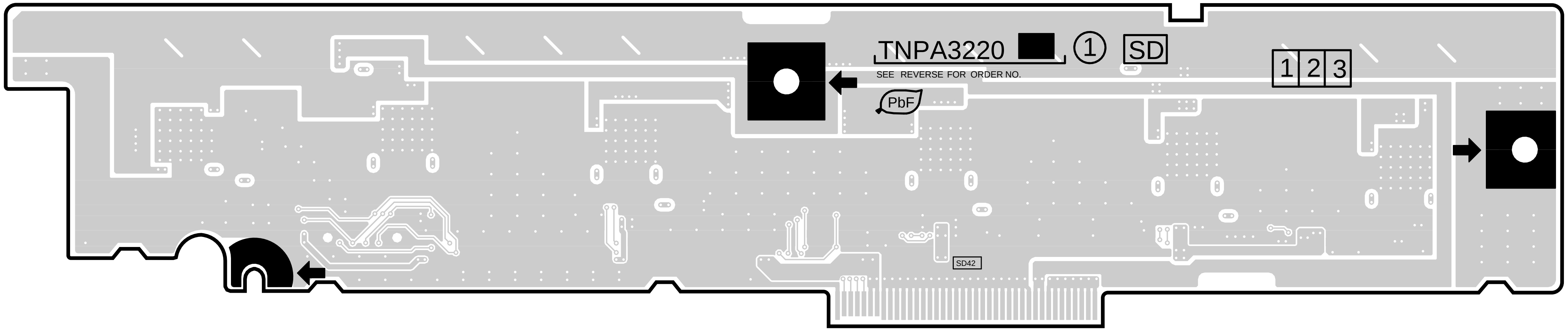
19. Schematic Diagram for printing with A4

Parts Location

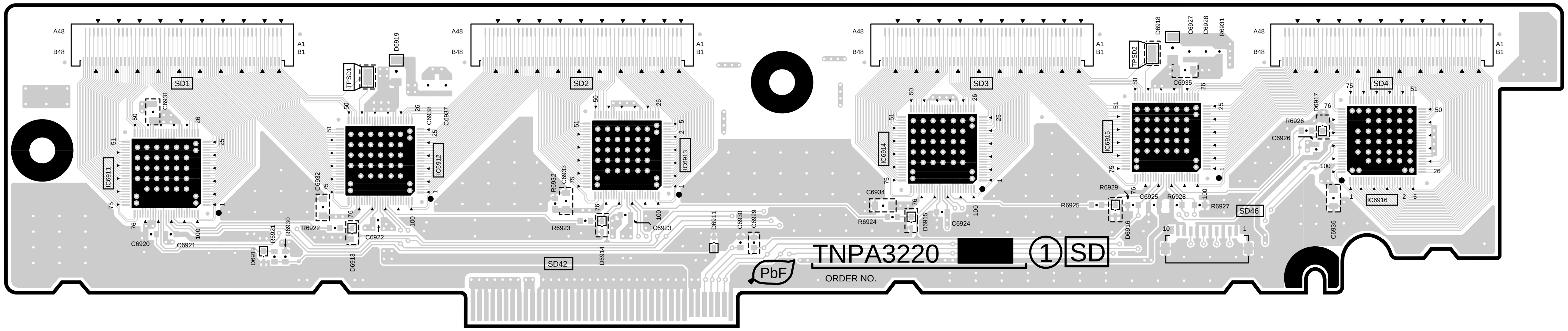
SD-BOARD			
IC		**TP**	
IC6911	A-2	TPSD1	C-2
IC6912	C-2	TPSD2	F-2
IC6913	D-2		
IC6914	E-2		
IC6915	F-2		
IC6916	H-2		



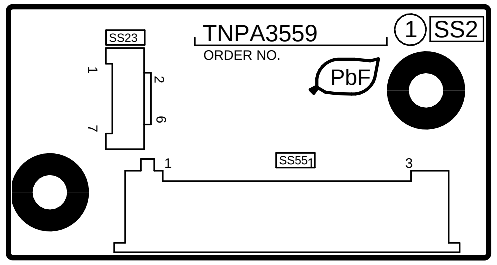
SD-BOARD(FOIL SIDE)
TNPA3220AB


TNPA3220
①
SD
SEE REVERSE FOR ORDER NO.
PbF
1 2 3
SD42

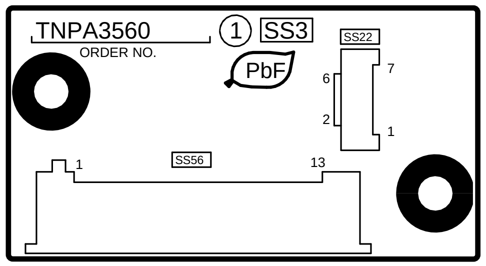
SD-BOARD(COMPONENT SIDE)
TNPA3220AB


A48
B48
A1
B1
SD1
SD2
SD3
SD4
SD42
SD46
IC6911
IC6912
IC6913
IC6914
IC6915
IC6916
TPSD1
TPSD2
D6911
D6912
D6913
D6914
D6915
D6916
D6917
D6918
D6919
C6920
C6921
C6922
C6923
C6924
C6925
C6926
C6927
C6928
C6929
C6930
C6931
C6932
C6933
C6934
C6935
C6936
C6937
C6938
R6921
R6922
R6923
R6924
R6925
R6926
R6927
R6928
R6929
R6930
R6931
R6932
TNPA3220
①
SD
ORDER NO.
PbF

SS2-BOARD (COMPONENT SIDE)
TNPA3559


SS23
TNPA3559
ORDER NO.
① SS2
PbF
1
7
2
6
SS55
1
3

SS3-BOARD (COMPONENT SIDE)
TNPA3560


TNPA3560
ORDER NO.
① SS3
PbF
SS22
6
2
7
1
SS56
1
13

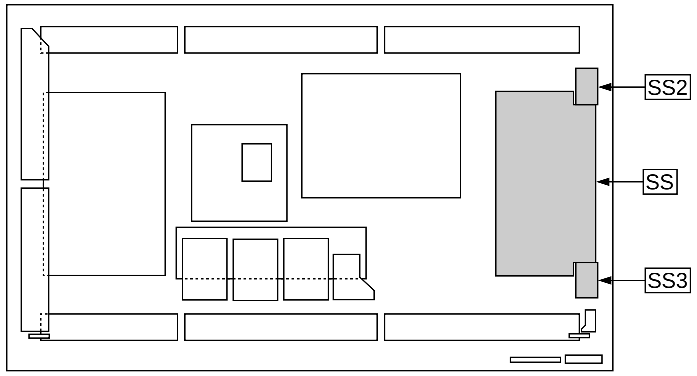
Parts Location

SS-BOARD (COMPONENT SIDE)

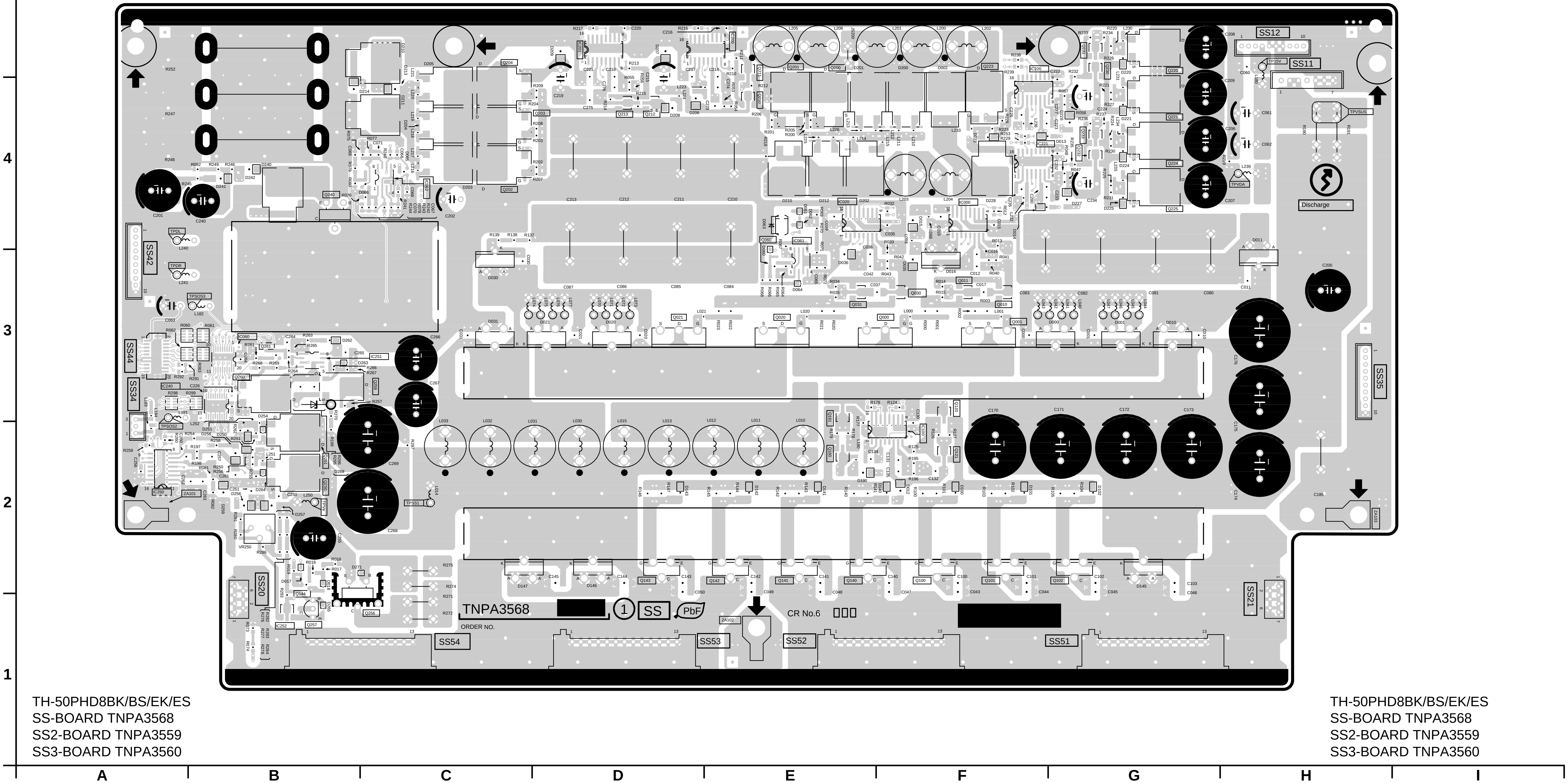
IC	
IC6000	F-4
IC6020	E-4
IC6060	B-3
IC6061	E-3
IC6062	C-4
IC6100	F-2
IC6200	E-5
IC6201	D-5
IC6220	F-4
IC6221	F-4
IC6240	B-3
IC6250	A-2
IC6251	B-3
IC6252	B-1

TRANSISTOR	
Q6000	F-3
Q6001	F-3
Q6010	F-3
Q6011	F-3
Q6020	E-3
Q6021	D-3
Q6030	F-3
Q6031	E-3
Q6050	E-3
Q6100	F-2
Q6101	F-2
Q6102	G-2
Q6120	F-3
Q6121	F-2
Q6140	E-2
Q6141	E-2
Q6142	E-2
Q6143	D-2
Q6144	B-2
Q6160	E-2
Q6161	E-2
Q6200	E-4
Q6201	E-4
Q6202	C-4
Q6203	C-4
Q6204	C-5
Q6210	E-4
Q6211	E-5
Q6212	D-4
Q6213	D-4
Q6220	G-5
Q6221	G-4
Q6223	F-4
Q6224	G-4
Q6225	G-4
Q6230	G-5
Q6231	G-5
Q6232	G-4
Q6233	G-4
Q6240	B-4
Q6250	B-2
Q6251	B-2
Q6256	B-1
Q6257	B-1
Q6259	B-3
Q6260	B-3
Q6261	B-3

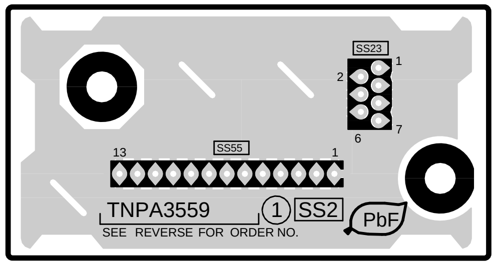
TP	
TP15V	H-5
TPDL	A-4
TPDR	A-3
TPSOS2	A-3
TPSOS3	B-3
TPSS1	C-2
TPVDA	H-4
TPVe	B-2
TPVSUS	H-4



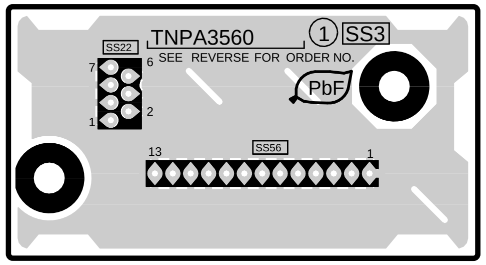
SS-BOARD (COMPONENT SIDE)
TNPA3568


TNPA3568
ORDER NO.
① SS
PbF
CR No.6
SS12
SS11
TP15V
TPVSUS
TPVDA
Discharge
SS42
SS44
SS34
SS35
SS20
SS21
SS54
SS53
SS52
SS51
TPDL
TPDR
TPSOS3
TPSOS2
TPSS1
TPVe
6
5
4
3
2
1
A
B
C
D
E
F
G
H
I

SS2-BOARD (FOIL SIDE)
TNPA3559

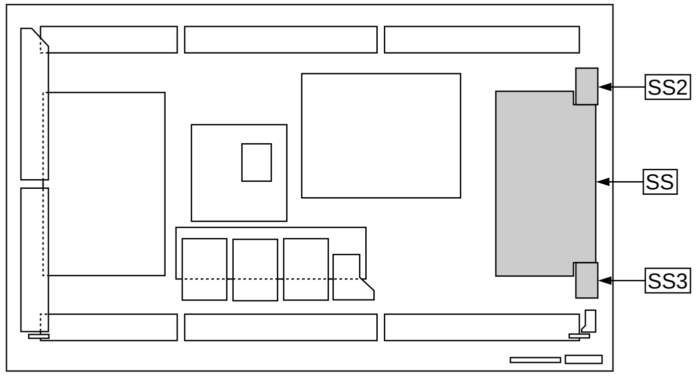

SS23
SS55
13
1
TNPA3559
①
SS2
SEE REVERSE FOR ORDER NO.
PbF

SS3-BOARD (FOIL SIDE)
TNPA3560

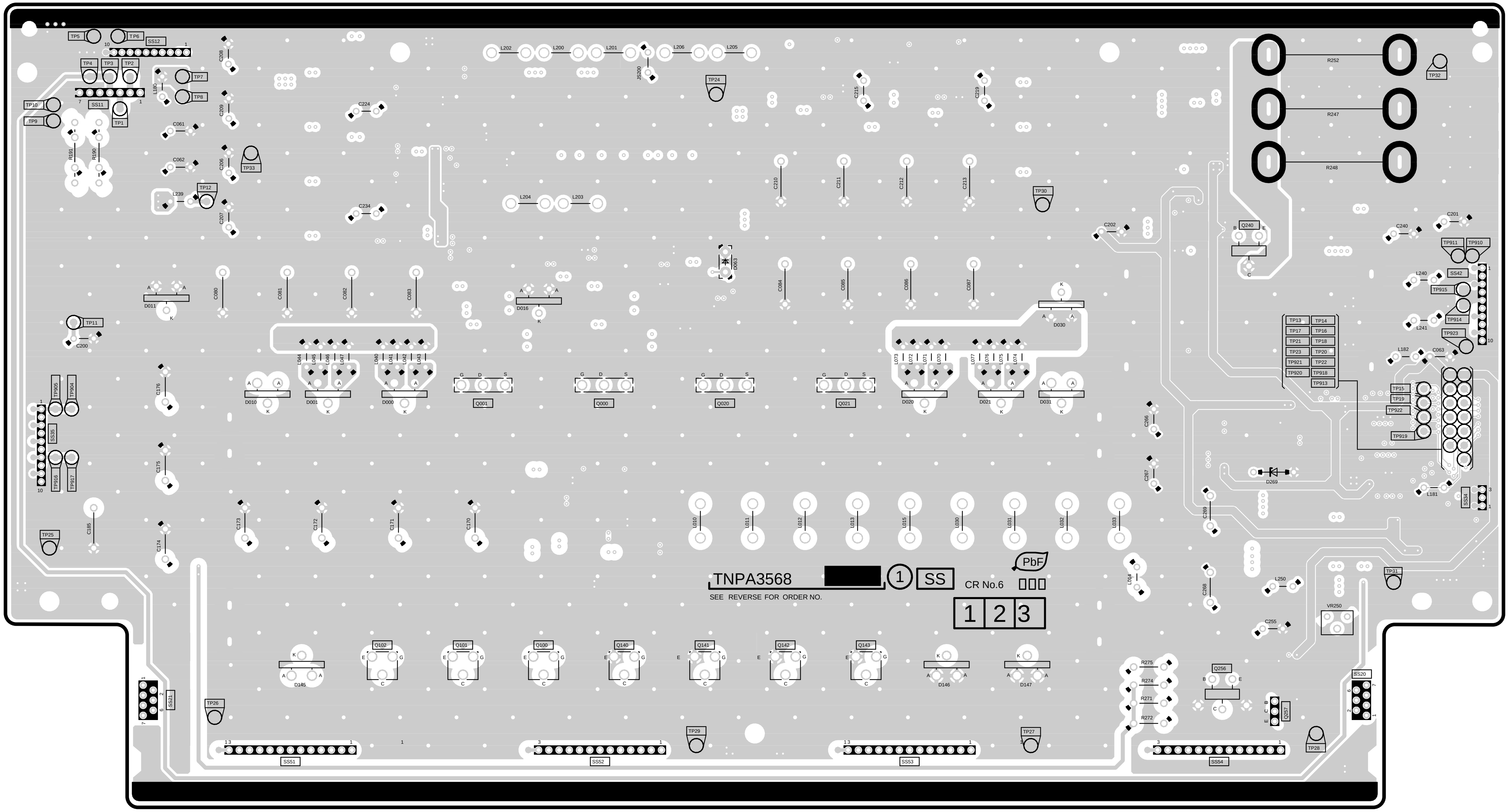

TNPA3560
①
SS3
SEE REVERSE FOR ORDER NO.
SS22
PbF
SS56
13
1

Parts Location

SS-BOARD (FOIL SIDE)							
TRANSISTOR		**TP**		TP17	H-3	TP6905	A-3
				TP18	H-3	TP6910	H-4
Q6001	C-3	TP1	B-4	TP19	H-3	TP6911	H-4
Q6000	D-3	TP2	B-5	TP20	H-3	TP6913	H-3
Q6020	E-3	TP3	B-5	TP21	H-3	TP6914	H-3
Q6021	E-3	TP4	B-5	TP22	H-3	TP6915	H-3
Q6102	C-2	TP5	B-5	TP23	H-3	TP6916	A-3
Q6101	C-2	TP6	B-5	TP24	E-4	TP6917	A-3
Q6100	D-2	TP7	B-5	TP25	A-2	TP6918	H-3
Q6140	D-2	TP8	B-4	TP26	B-1	TP6919	H-3
Q6141	E-2	TP9	A-4	TP27	F-1	TP6920	H-3
Q6142	E-2	TP10	A-4	TP28	H-1	TP6921	H-3
Q6143	E-2	TP11	A-3	TP29	E-1	TP6922	H-3
Q6240	G-4	TP12	B-4	TP30	F-4	TP6923	H-3
Q6256	G-2	TP13	H-3	TP31	H-2		
Q6257	G-1	TP14	H-3	TP32	H-5		
		TP15	H-3	TP33	B-4		
		TP16	H-3	TP6904	A-3		



SS-BOARD (FOIL SIDE)
TNPA3568


TNPA3568
①
SS
SEE REVERSE FOR ORDER NO.
CR No.6
1 2 3
PbF
SS11
SS12
SS35
SS42
SS51
SS52
SS53
SS54
SS20
SS21
Q6001
Q6000
Q6020
Q6021
Q6102
Q6101
Q6100
Q6140
Q6141
Q6142
Q6143
Q6240
Q6256
Q6257
R252
R247
R248
D146
D147

6
5
4
3
2
1
A
B
C
D
E
F
G
H
I

6

5

4

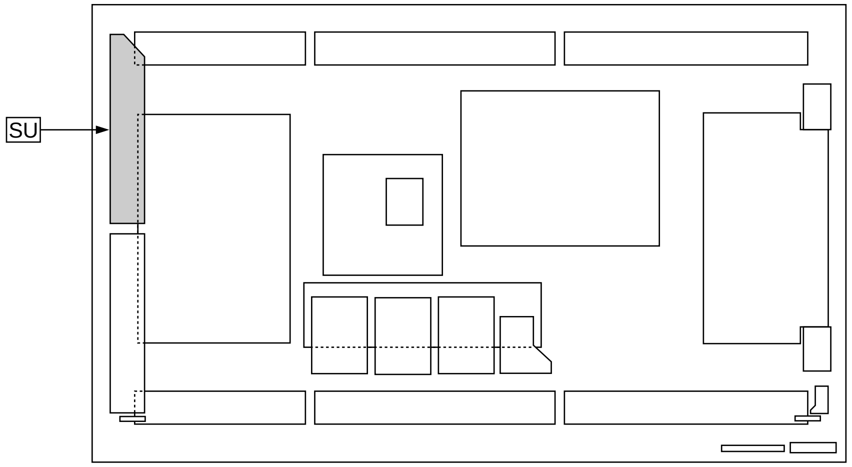
3

2

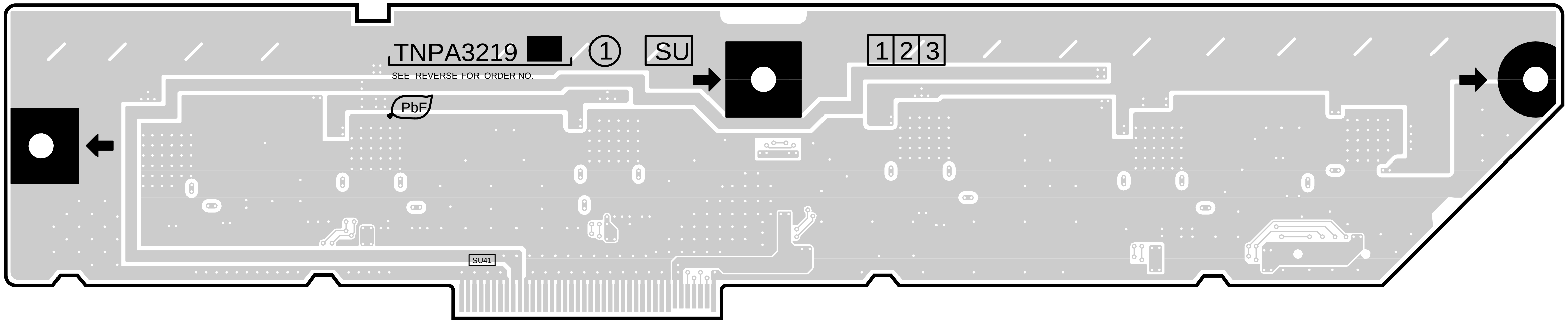
1

Parts Location

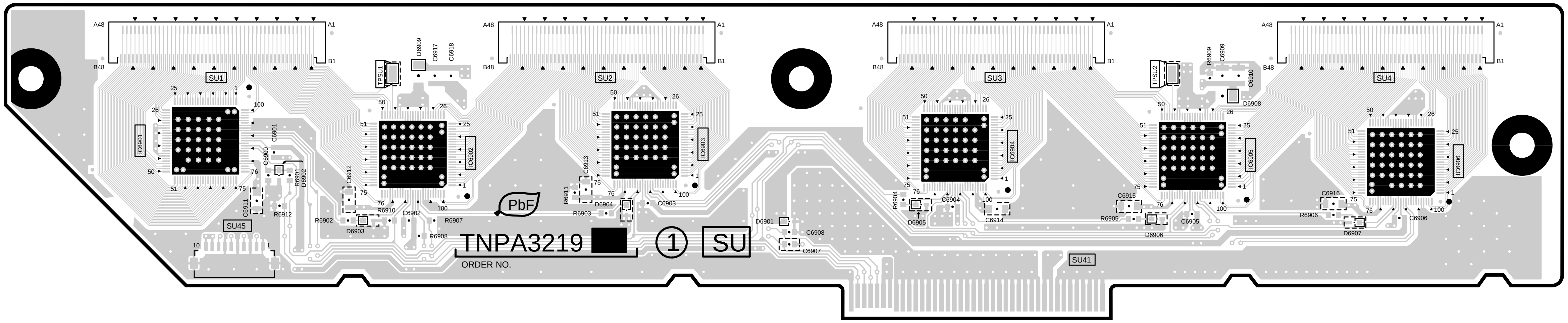
SU-BOARD			
IC		**TP**	
IC6901	B-2	TPSU1	C-2
IC6902	C-2	TPSU2	G-2
IC6903	D-2		
IC6904	F-2		
IC6905	G-2		
IC6906	H-2		



SU-BOARD(FOIL SIDE)
TNPA3219AB

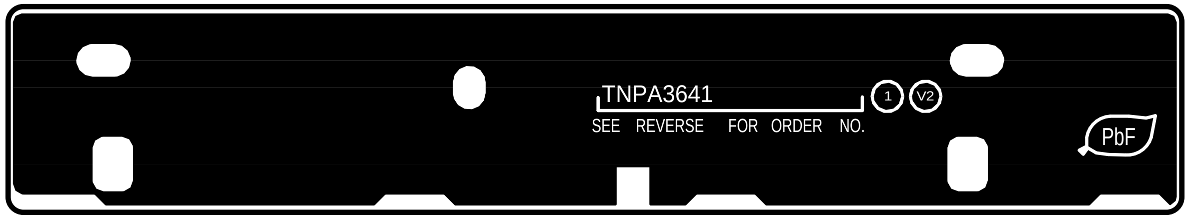

TNPA3219
①
SU
SEE REVERSE FOR ORDER NO.
1 2 3
PbF
SU41

SU-BOARD(COMPONENT SIDE)
TNPA3219AB

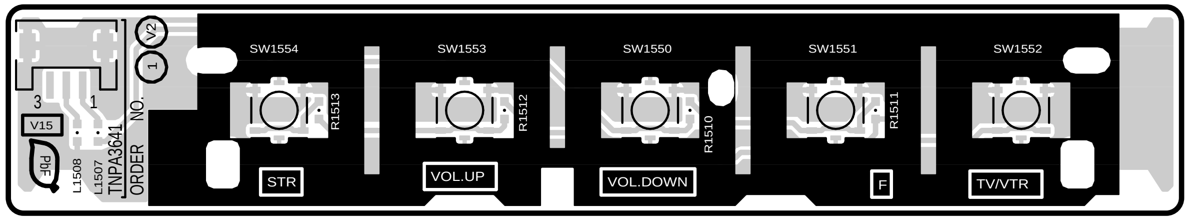

A48
A1
B48
B1
SU1
SU2
SU3
SU4
SU45
SU41
IC6901
IC6902
IC6903
IC6904
IC6905
IC6906
TPSU1
TPSU2
C6901
C6902
C6903
C6904
C6905
C6906
C6907
C6908
C6909
C6910
C6911
C6912
C6913
C6914
C6915
C6916
C6917
C6918
D6901
D6902
D6903
D6904
D6905
D6906
D6907
D6908
D6909
R6901
R6902
R6903
R6904
R6905
R6906
R6907
R6908
R6909
R6910
R6911
R6912
PbF
TNPA3219
ORDER NO.
①
SU

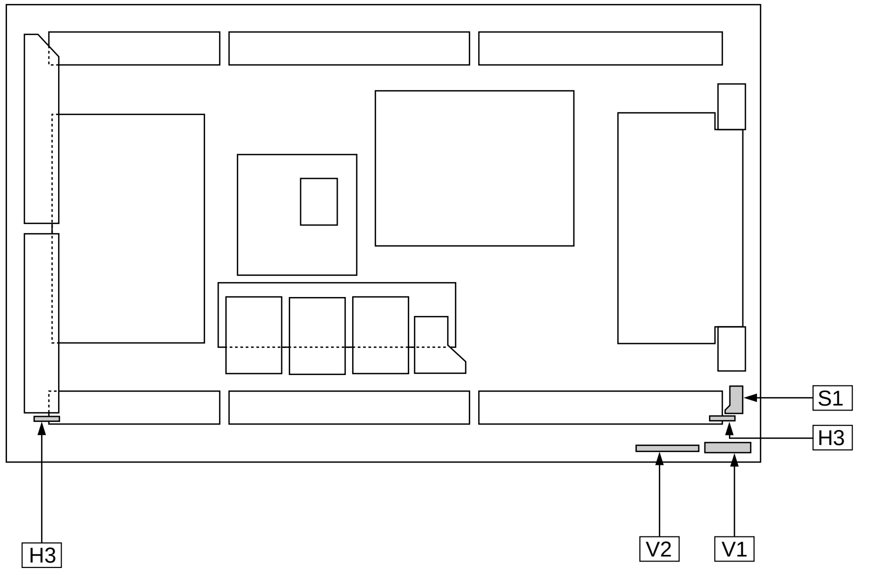
A B C D E F G H I

V2-BOARD(FOIL SIDE)
TNPA3641

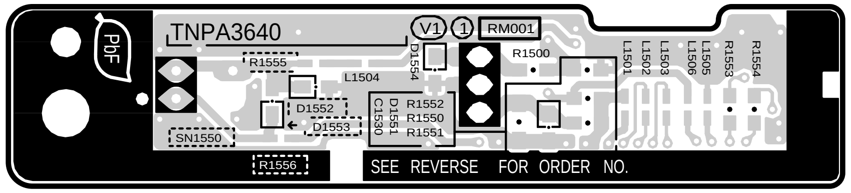

TNPA3641
SEE REVERSE FOR ORDER NO.
1
V2
PbF

V2-BOARD(COMPONENT SIDE)
TNPA3641

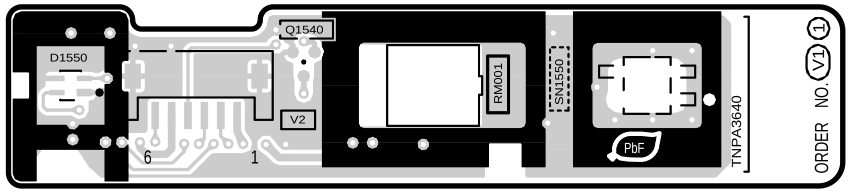

V2
1
3
1
V15
PbF
L1508
L1507
TNPA3641
ORDER NO.
SW1554
SW1553
SW1550
SW1551
SW1552
R1513
R1512
R1510
R1511
STR
VOL.UP
VOL.DOWN
F
TV/VTR


S1
H3
H3
V2
V1

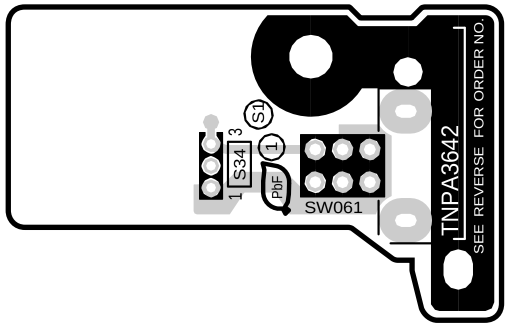
V1-BOARD(FOIL SIDE)
TNPA3640


PbF
TNPA3640
V1
1
RM001
R1555
D1554
R1500
L1504
L1501
L1502
L1503
L1505
L1506
R1553
R1554
D1552
D1553
C1530
D1551
R1552
R1550
R1551
SN1550
R1556
SEE REVERSE FOR ORDER NO.

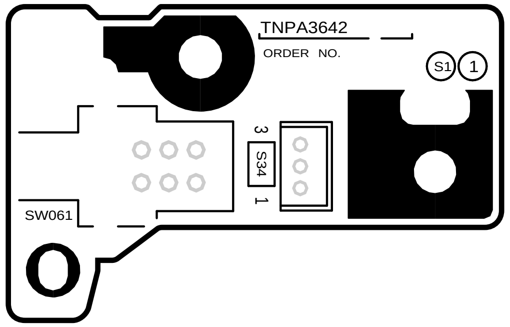
V1-BOARD(COMPONENT SIDE)
TNPA3640


D1550
Q1540
RM001
SN1550
V2
6
1
PbF
TNPA3640
ORDER NO.
V1
1

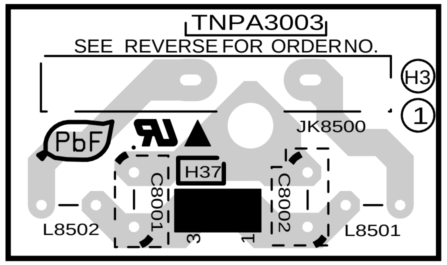
S1-BOARD(FOIL SIDE)
TNPA3642


3
S34
1
S1
1
PbF
SW061
TNPA3642
SEE REVERSE FOR ORDER NO.

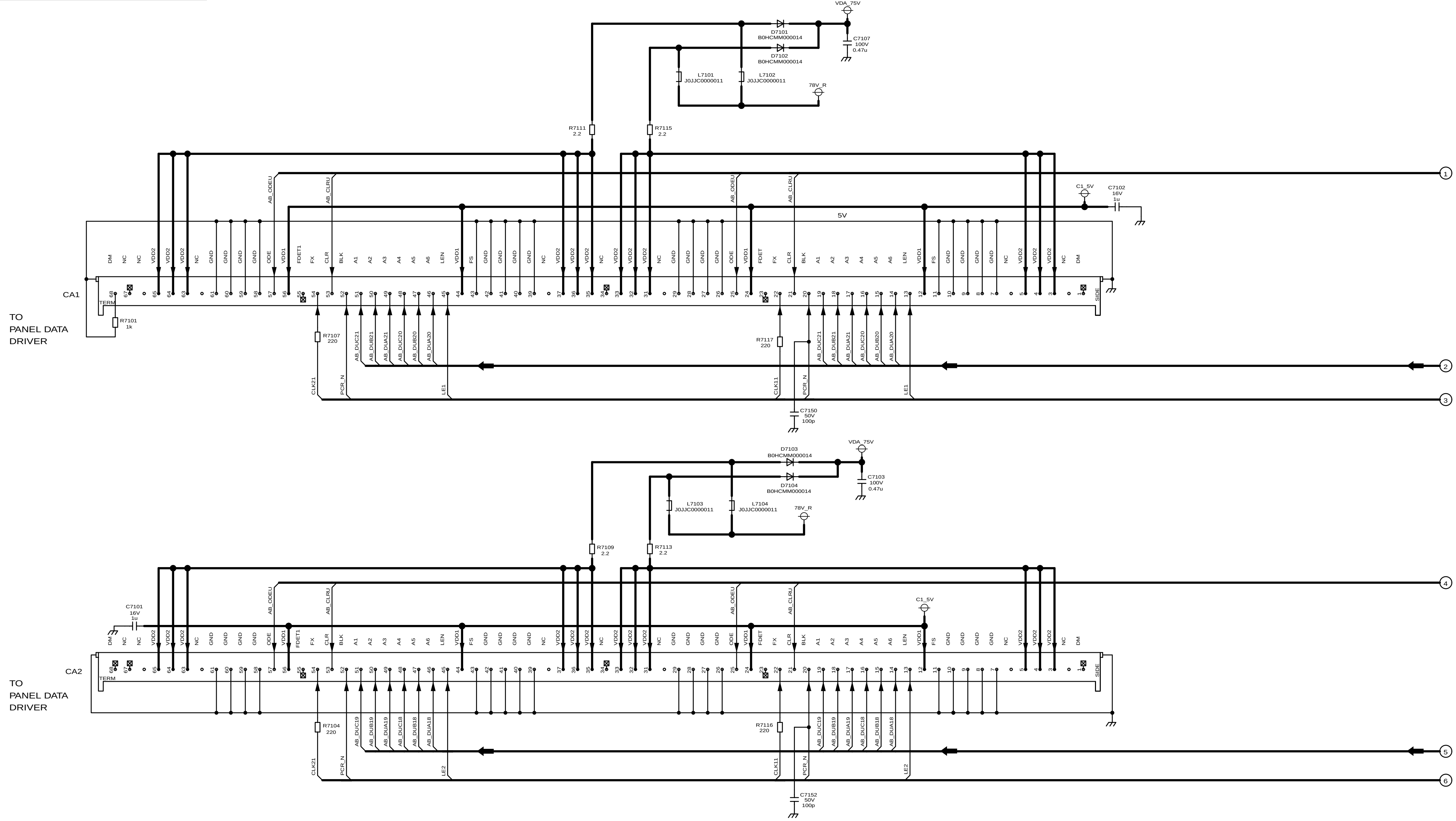
S1-BOARD(COMPONENT SIDE)
TNPA3642


TNPA3642
ORDER NO.
S1
1
3
S34
1
SW061

H3-BOARD
TNPA3003


TNPA3003
SEE REVERSE FOR ORDER NO.
H3
1
PbF
JK8500
H37
C8001
C8002
L8502
L8501
3
1

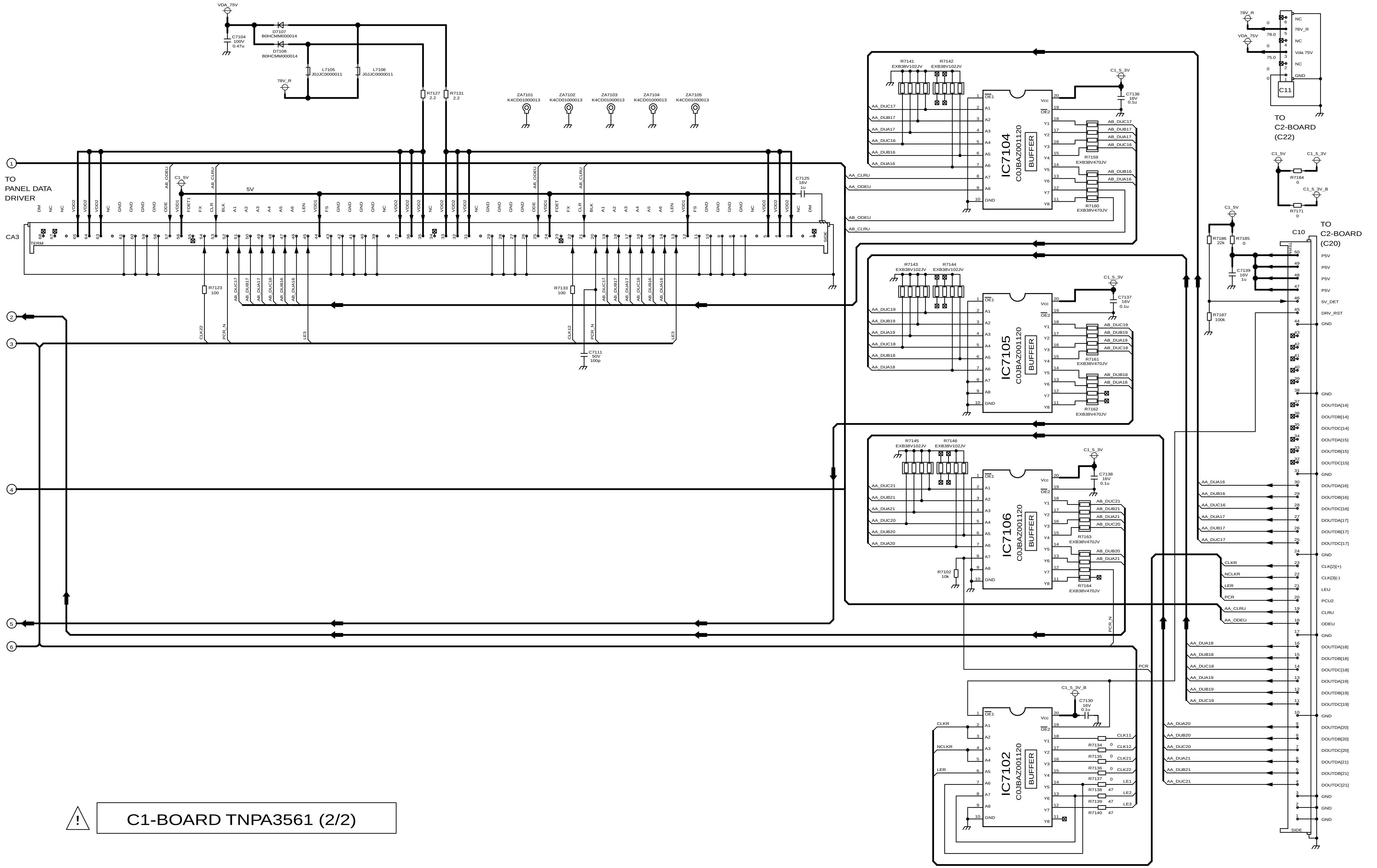
C1-BOARD TNPA3561 (1/2)


VDA_75V
D7101
B0HCMM000014
D7102
B0HCMM000014
C7107
100V
0.47u
L7101
J0JJC0000011
L7102
J0JJC0000011
78V_R
R7111
2.2
R7115
2.2
C1_5V
C7102
16V
1u
5V
CA1
TERM
R7101
1k
TO
PANEL DATA
DRIVER
R7107
220
R7117
220
C7150
50V
100p
AB_ODEU
AB_CLRU
AB_DUC21
AB_DUB21
AB_DUA21
AB_DUC20
AB_DUB20
AB_DUA20
CLK21
CLK11
PCR_N
LE1
LE2
VDD1
VDD2
GND
NC
DM
ODE
FDET1
FDET
FX
CLR
BLK
A1
A2
A3
A4
A5
A6
LEN
FS
SIDE
VDA_75V
D7103
B0HCMM000014
D7104
B0HCMM000014
C7103
100V
0.47u
L7103
J0JJC0000011
L7104
J0JJC0000011
78V_R
R7109
2.2
R7113
2.2
C7101
16V
1u
CA2
R7104
220
R7116
220
C7152
50V
100p
AB_DUC19
AB_DUB19
AB_DUA19
AB_DUC18
AB_DUB18
AB_DUA18
1
2
3
4
5
6

A
B
C
D
E
1
2
3
4
5
6
7
8

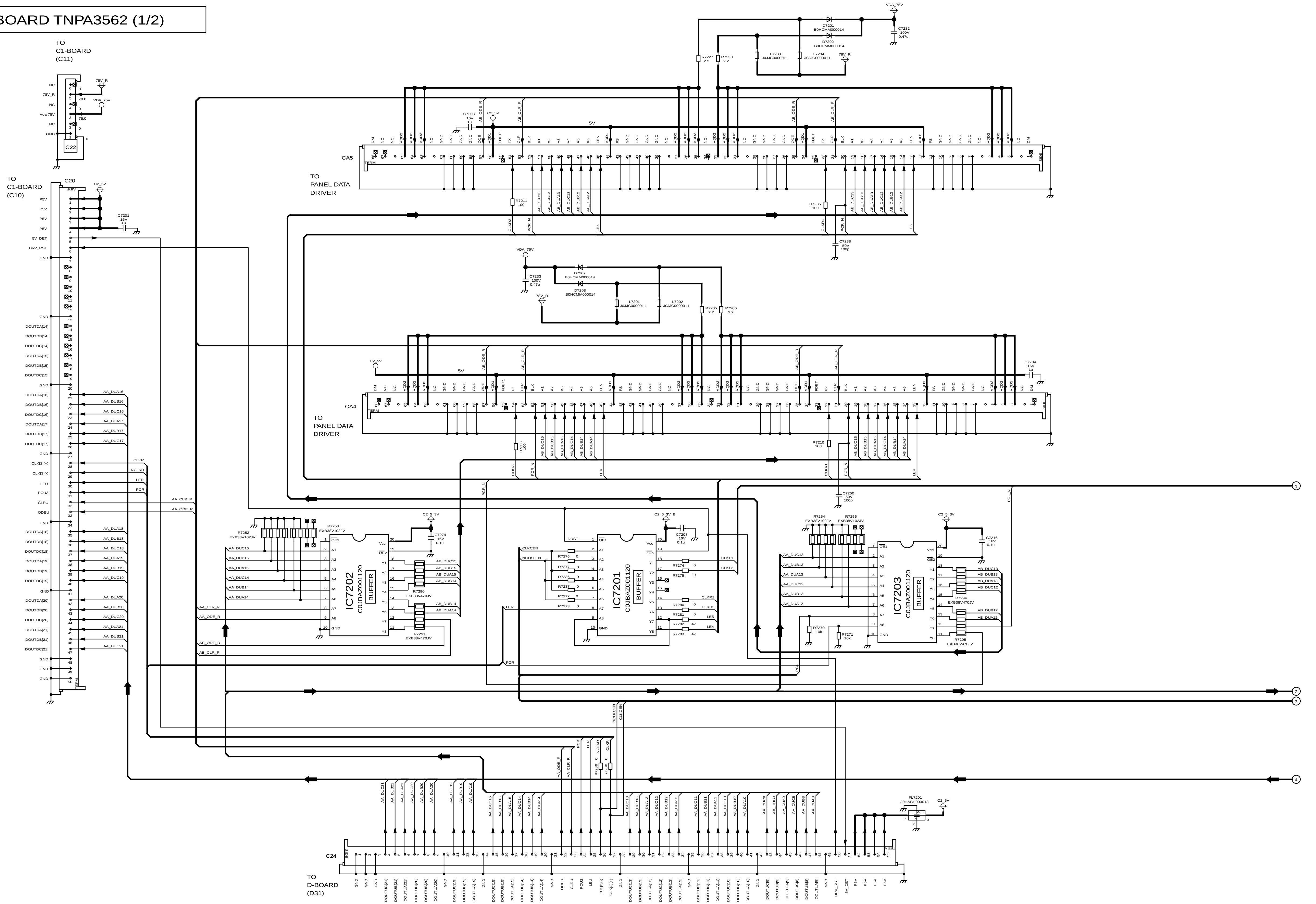
TH-50PHD8BK/BS/EK/ES
C1-Board (1 of 2) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
C1-Board (1 of 2) Schematic Diagram


VDA_75V
C7104
100V
0.47u
D7107
B0HCMM000014
D7108
B0HCMM000014
L7105
J0JJC0000011
L7106
J0JJC0000011
78V_R
R7127
2.2
R7131
2.2
ZA7101
K4CD01000013
ZA7102
K4CD01000013
ZA7103
K4CD01000013
ZA7104
K4CD01000013
ZA7105
K4CD01000013
TO
PANEL DATA
DRIVER
CA3
TERM
SIDE
5V
C1_5V
C7125
16V
1u
AB_ODEU
AB_CLRU
R7123
100
R7133
100
C7111
50V
100p
CLK22
PCR_N
LE3
CLK12
AB_DUC17
AB_DUB17
AB_DUA17
AB_DUC16
AB_DUB16
AB_DUA16
R7141
EXB38V102JV
R7142
EXB38V102JV
C1_5_3V
C7136
16V
0.1u
IC7104
C0JBAZ001120
BUFFER
R7159
EXB38V470JV
R7160
EXB38V470JV
AA_DUC17
AA_DUB17
AA_DUA17
AA_DUC16
AA_DUB16
AA_DUA16
AA_CLRU
AA_ODEU
AB_ODEU
AB_CLRU
R7143
EXB38V102JV
R7144
EXB38V102JV
C7137
16V
0.1u
IC7105
C0JBAZ001120
BUFFER
R7161
EXB38V470JV
R7162
EXB38V470JV
AA_DUC19
AA_DUB19
AA_DUA19
AA_DUC18
AA_DUB18
AA_DUA18
AB_DUC19
AB_DUB19
AB_DUA19
AB_DUC18
AB_DUB18
AB_DUA18
R7145
EXB38V102JV
R7146
EXB38V102JV
C7138
16V
0.1u
IC7106
C0JBAZ001120
BUFFER
R7163
EXB38V470JV
R7164
EXB38V470JV
R7102
10k
AA_DUC21
AA_DUB21
AA_DUA21
AA_DUC20
AA_DUB20
AA_DUA20
AB_DUC21
AB_DUB21
AB_DUA21
AB_DUC20
AB_DUB20
AB_DUA21
PCR_N
PCR
C1_5_3V_B
C7130
16V
0.1u
IC7102
C0JBAZ001120
BUFFER
CLKR
NCLKR
LER
R7134 0
R7135 0
R7136 0
R7137 0
R7138 47
R7139 47
R7140 47
CLK11
CLK12
CLK21
CLK22
LE1
LE2
LE3
OE1
A1
A2
A3
A4
A5
A6
A7
A8
GND
Vcc
OE2
Y1
Y2
Y3
Y4
Y5
Y6
Y7
Y8
78V_R
VDA_75V
NC
78V_R
NC
Vda 75V
NC
GND
C11
TO
C2-BOARD
(C22)
C1_5V
C1_5_3V
R7184
0
C1_5_3V_B
R7171
0
R7186
22k
R7185
0
C7139
16V
1u
R7187
100k
C10
TO
C2-BOARD
(C20)
P5V
5V_DET
DRV_RST
GND
DOUTDA[14]
DOUTDB[14]
DOUTDC[14]
DOUTDA[15]
DOUTDB[15]
DOUTDC[15]
DOUTDA[16]
DOUTDB[16]
DOUTDC[16]
DOUTDA[17]
DOUTDB[17]
DOUTDC[17]
CLK[2](+)
CLK[3](-)
LEU
PCU2
CLRU
ODEU
DOUTDA[18]
DOUTDB[18]
DOUTDC[18]
DOUTDA[19]
DOUTDB[19]
DOUTDC[19]
DOUTDA[20]
DOUTDB[20]
DOUTDC[20]
DOUTDA[21]
DOUTDB[21]
DOUTDC[21]
CLKR
NCLKR
LER
PCR
AA_CLRU
AA_ODEU
1
2
3
4
5
6

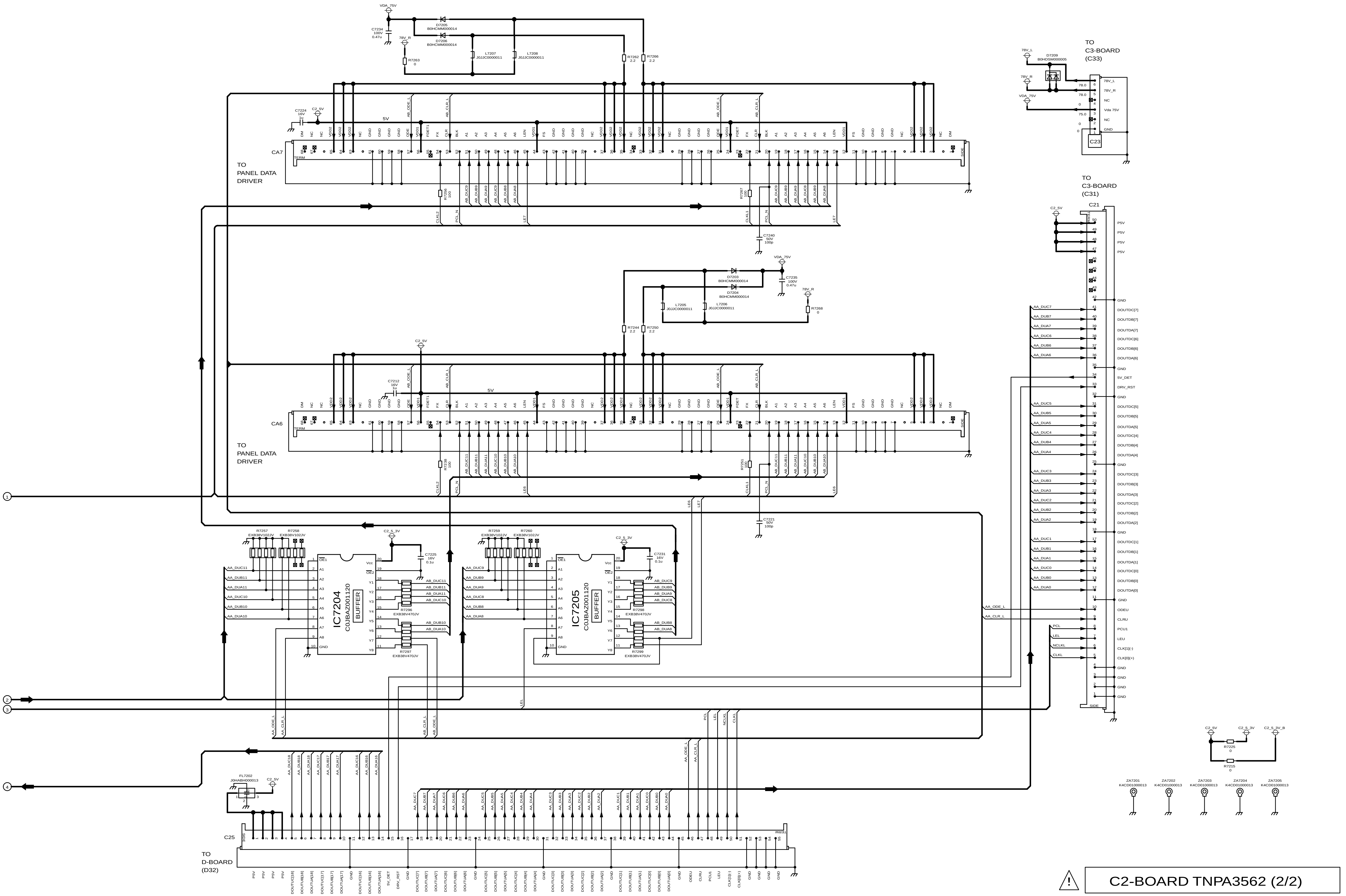
C1-BOARD TNPA3561 (2/2)

C2-BOARD TNPA3562 (1/2)


TO
C1-BOARD
(C11)
C22
78V_R
VDA_75V
NC
Vda 75V
GND
TO
C1-BOARD
(C10)
C20
C2_5V
C7201
16V
1u
P5V
5V_DET
DRV_RST
GND
DOUTDA[14]
DOUTDB[14]
DOUTDC[14]
CLK[2](+)
CLK[2](-)
LEU
PCU2
CLRU
ODEU
TERM
TO
PANEL DATA
DRIVER
CA5
CA4
5V
C7203
16V
1u
C7204
16V
1u
D7201
B0HCMM000014
D7202
B0HCMM000014
D7207
B0HCMM000014
D7208
B0HCMM000014
L7201
J0JJC0000011
L7202
J0JJC0000011
L7203
J0JJC0000011
L7204
J0JJC0000011
R7227
2.2
R7230
2.2
R7205
2.2
R7206
2.2
C7232
100V
0.47u
C7233
100V
0.47u
R7211
100
R7235
100
R7210
100
C7238
50V
100p
C7250
50V
100p
IC7202
C0JBAZ001120
BUFFER
R7252
EXB38V102JV
R7253
EXB38V102JV
R7290
EXB38V470JV
R7291
EXB38V470JV
C7274
16V
0.1u
C2_5_3V
IC7201
C0JBAZ001120
BUFFER
C2_5_3V_B
C7208
16V
0.1u
CLKCEN
NCLKCEN
DRST
CLKL1
CLKL2
CLKR1
CLKR2
LE5
LE4
LER
PCR
IC7203
C0JBAZ001120
BUFFER
R7254
EXB38V102JV
R7255
EXB38V102JV
R7294
EXB38V470JV
R7295
EXB38V470JV
C7216
16V
0.1u
R7270
10k
R7271
10k
FL7201
J0HABH000013
C24
TO
D-BOARD
(D31)
①
②
③
④
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

TH-50PHD8BK/BS/EK/ES
C2-Board (1 of 2) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
C2-Board (1 of 2) Schematic Diagram

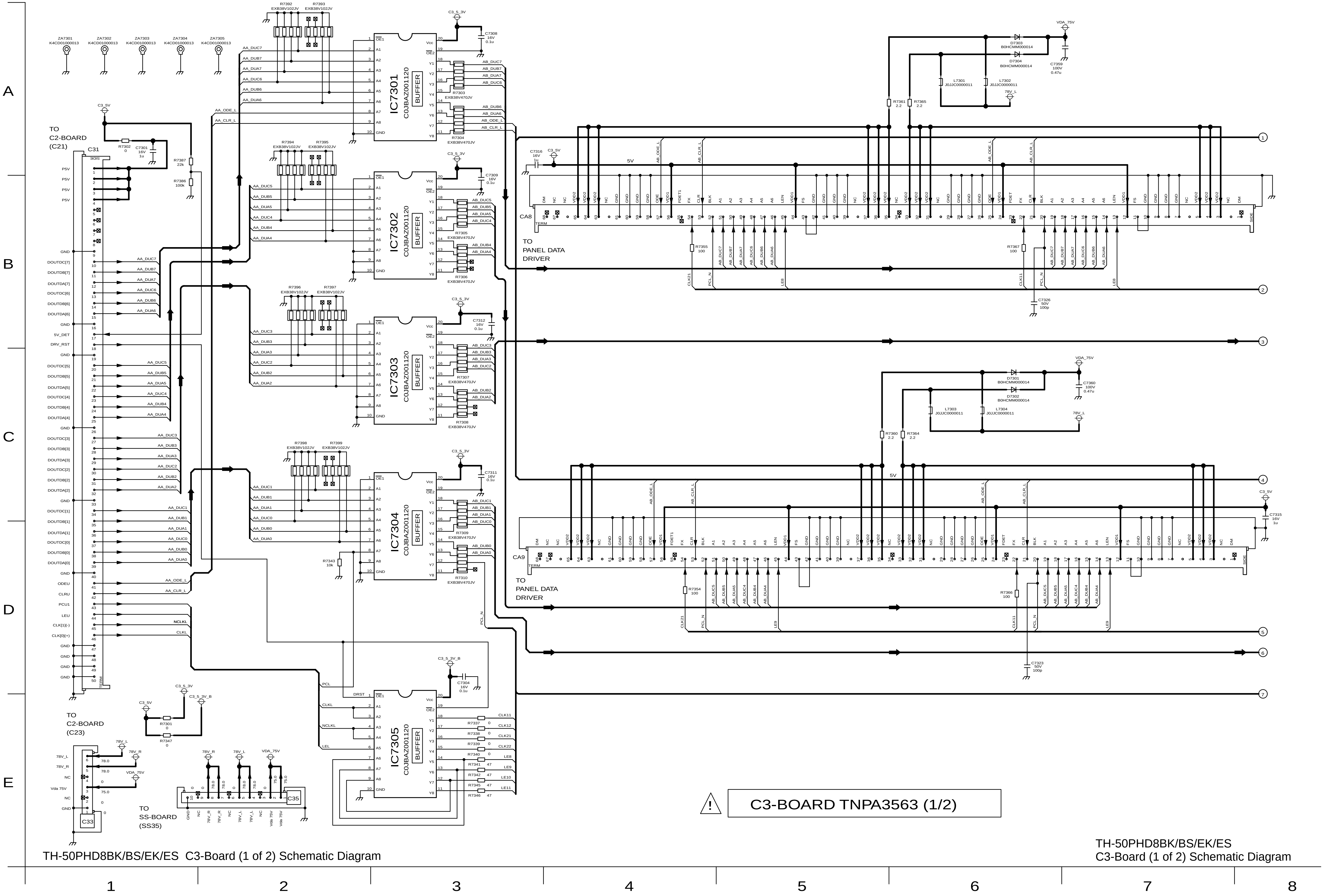

CA7
TO PANEL DATA DRIVER
CA6
TO PANEL DATA DRIVER
TO C3-BOARD (C33)
C23
TO C3-BOARD (C31)
C21
IC7204
C0JBAZ001120
BUFFER
IC7205
C0JBAZ001120
BUFFER
C25
TO D-BOARD (D32)
VDA_75V
78V_R
78V_L
C2_5V
C2_5_3V
C2_5_3V_B
D7205 B0HCMM000014
D7206 B0HCMM000014
D7203 B0HCMM000014
D7204 B0HCMM000014
D7209 B0HDSM000005
L7207 J0JJC0000011
L7208 J0JJC0000011
L7205 J0JJC0000011
L7206 J0JJC0000011
R7257 EXB38V102JV
R7258 EXB38V102JV
R7259 EXB38V102JV
R7260 EXB38V102JV
R7296 EXB38V470JV
R7297 EXB38V470JV
R7298 EXB38V470JV
R7299 EXB38V470JV
FL7202 J0HABH000013
ZA7201 K4CD01000013
ZA7202 K4CD01000013
ZA7203 K4CD01000013
ZA7204 K4CD01000013
ZA7205 K4CD01000013
R7225 0
R7215 0
5V
AA_ODE_L
AA_CLR_L
AB_ODE_L
AB_CLR_L
CLKL1
CLKL2
PCL_N
LE6
LE7
LEL
PCL
NCLKL
CLKL
1
2
3
4

C2-BOARD TNPA3562 (2/2)

TH-50PHD8BK/BS/EK/ES
C2-Board (2 of 2) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
C2-Board (2 of 2) Schematic Diagram

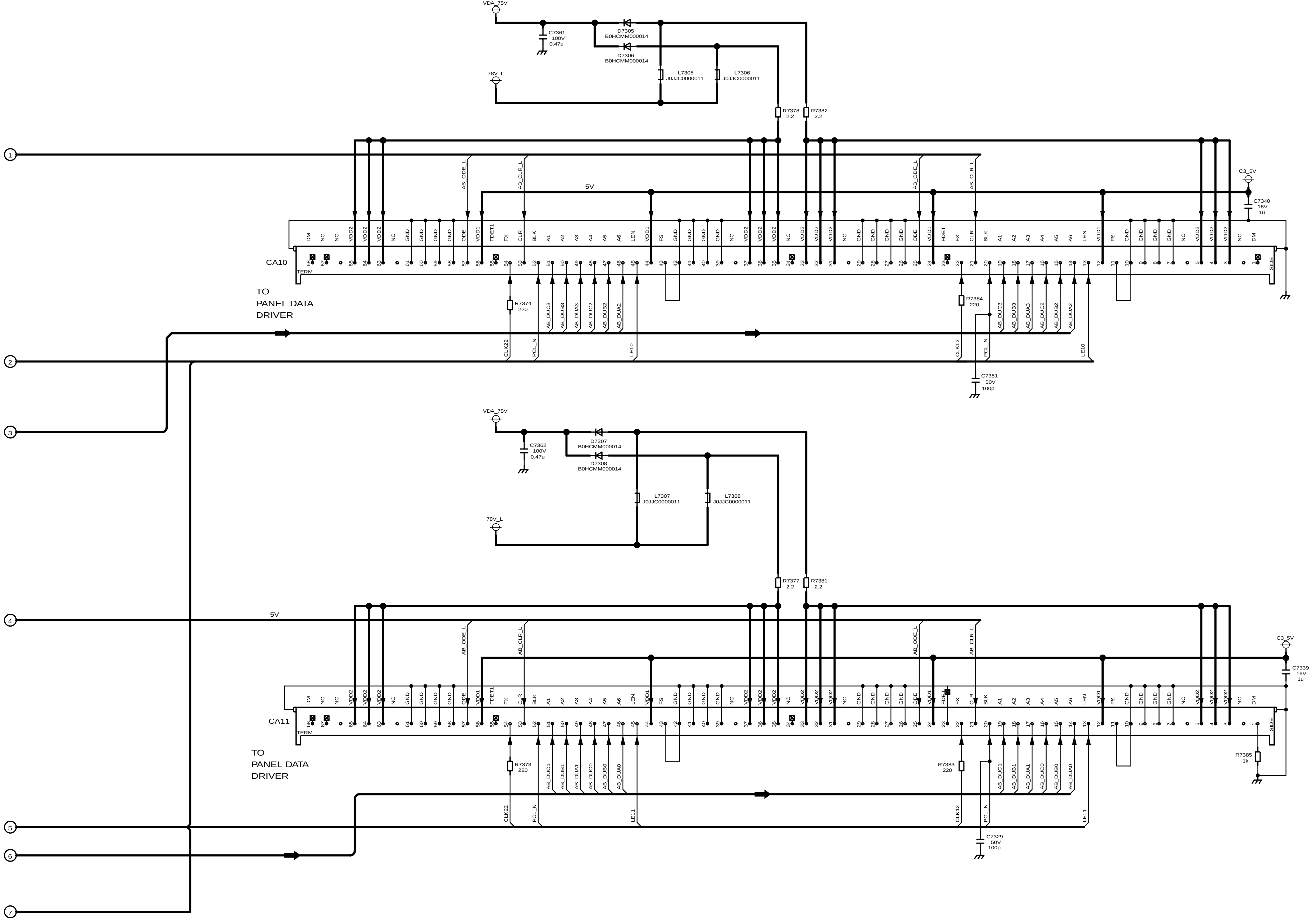
10 11 12 13 14 15 16 17 18


C3-BOARD TNPA3563 (1/2)
IC7301 C0JBAZ001120 BUFFER
IC7302 C0JBAZ001120 BUFFER
IC7303 C0JBAZ001120 BUFFER
IC7304 C0JBAZ001120 BUFFER
IC7305 C0JBAZ001120 BUFFER
TO C2-BOARD (C21)
TO C2-BOARD (C23)
TO SS-BOARD (SS35)
TO PANEL DATA DRIVER
TO PANEL DATA DRIVER
C31
C33
C35
CA8
CA9
ZA7301 K4CD01000013
ZA7302 K4CD01000013
ZA7303 K4CD01000013
ZA7304 K4CD01000013
ZA7305 K4CD01000013
R7392 EXB38V102JV
R7393 EXB38V102JV
R7394 EXB38V102JV
R7395 EXB38V102JV
R7396 EXB38V102JV
R7397 EXB38V102JV
R7398 EXB38V102JV
R7399 EXB38V102JV
R7303 EXB38V470JV
R7304 EXB38V470JV
R7305 EXB38V470JV
R7306 EXB38V470JV
R7307 EXB38V470JV
R7308 EXB38V470JV
R7309 EXB38V470JV
R7310 EXB38V470JV
C7308 16V 0.1u
C7309 16V 0.1u
C7312 16V 0.1u
C7311 16V 0.1u
C7304 16V 0.1u
C7301 16V 1u
C7316 16V 1u
C7315 16V 1u
R7302 0
R7387 22k
R7386 100k
R7343 10k
R7301 0
R7347 0
R7337 0
R7338 0
R7339 0
R7340 0
R7341 47
R7342 47
R7345 47
R7346 47
D7303 B0HCMM000014
D7304 B0HCMM000014
D7301 B0HCMM000014
D7302 B0HCMM000014
L7301 J0JJC0000011
L7302 J0JJC0000011
L7303 J0JJC0000011
L7304 J0JJC0000011
C7359 100V 0.47u
C7360 100V 0.47u
R7361 2.2
R7365 2.2
R7360 2.2
R7364 2.2
R7355 100
R7367 100
R7354 100
R7366 100
C7326 50V 100p
C7323 50V 100p
VDA_75V
78V_L
78V_R
C3_5V
C3_5_3V
C3_5_3V_B
5V
P5V
GND
DOUTDC[7]
DOUTDB[7]
DOUTDA[7]
DOUTDC[6]
DOUTDB[6]
DOUTDA[6]
5V_DET
DRV_RST
DOUTDC[5]
DOUTDB[5]
DOUTDA[5]
DOUTDC[4]
DOUTDB[4]
DOUTDA[4]
DOUTDC[3]
DOUTDB[3]
DOUTDA[3]
DOUTDC[2]
DOUTDB[2]
DOUTDA[2]
DOUTDC[1]
DOUTDB[1]
DOUTDA[1]
DOUTDC[0]
DOUTDB[0]
DOUTDA[0]
ODEU
CLRU
PCU1
LEU
CLK[1](-)
CLK[0](+)
TERM
AA_ODE_L
AA_CLR_L
AB_ODE_L
AB_CLR_L
NCLKL
CLKL
PCL
CLKL
NCLKL
LEL
DRST
CLK11
CLK12
CLK21
CLK22
LE8
LE9
LE10
LE11
PCL_N
78V_L
78V_R
NC
Vda 75V
78.0
75.0
GND
DM
NC
VDD2
VDD1
ODE
FDET1
FX
CLR
BLK
A1
A2
A3
A4
A5
A6
LEN
FS
SIDE
1
2
3
4
5
6
7
A
B
C
D
E
1
2
3
4
5
6
7
8

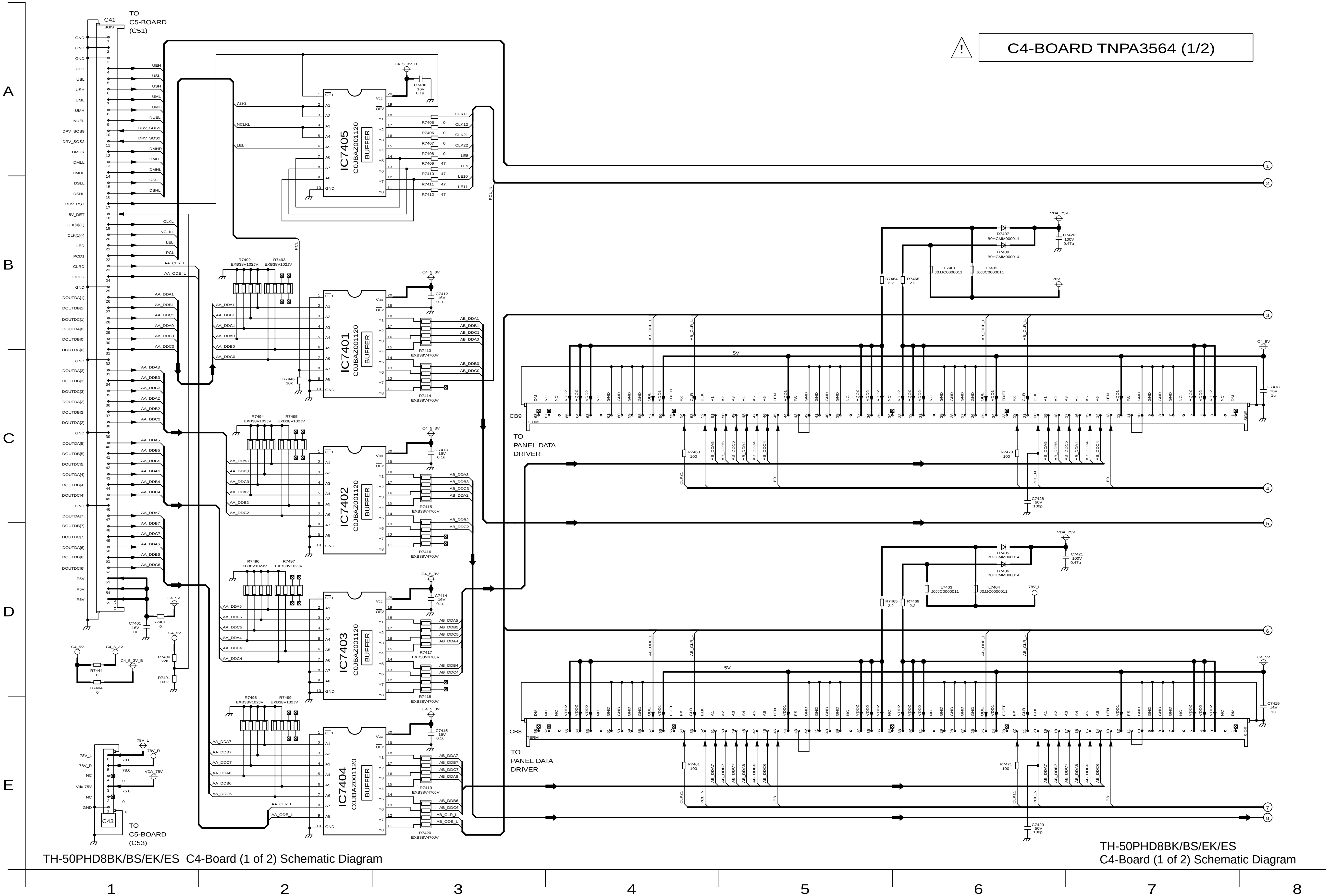
TH-50PHD8BK/BS/EK/ES C3-Board (1 of 2) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
C3-Board (1 of 2) Schematic Diagram

C3-BOARD TNPA3563 (2/2)

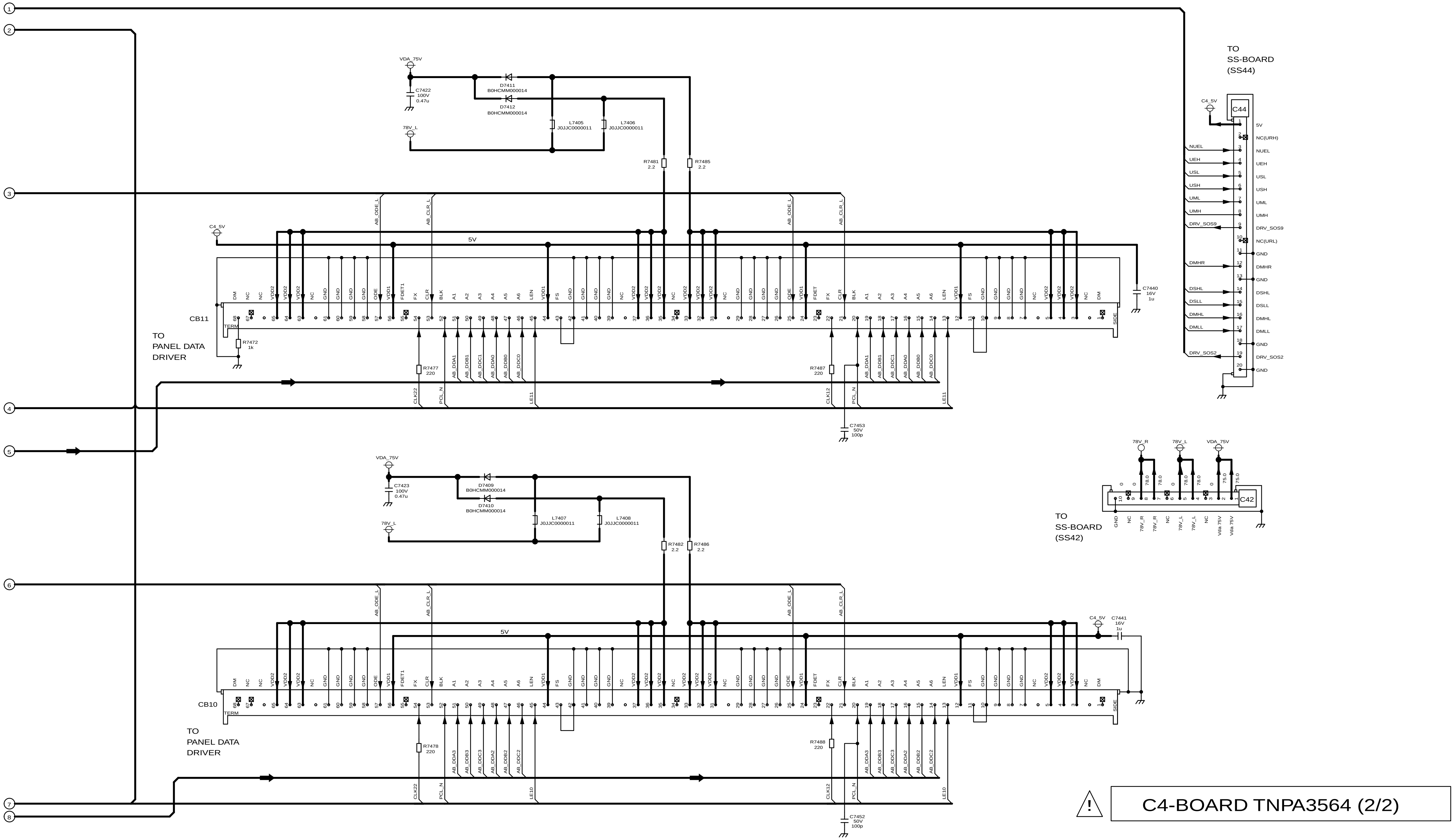

VDA_75V
C7361 100V 0.47u
D7305 B0HCMM000014
D7306 B0HCMM000014
78V_L
L7305 J0JJC0000011
L7306 J0JJC0000011
R7378 2.2
R7382 2.2
AB_ODE_L
AB_CLR_L
5V
C3_5V
C7340 16V 1u
CA10
TERM
SIDE
TO
PANEL DATA
DRIVER
R7374 220
R7384 220
AB_DUC3
AB_DUB3
AB_DUA3
AB_DUC2
AB_DUB2
AB_DUA2
CLK22
PCL_N
LE10
CLK12
C7351 50V 100p
VDA_75V
C7362 100V 0.47u
D7307 B0HCMM000014
D7308 B0HCMM000014
L7307 J0JJC0000011
L7308 J0JJC0000011
78V_L
R7377 2.2
R7381 2.2
5V
C3_5V
C7339 16V 1u
CA11
TERM
SIDE
TO
PANEL DATA
DRIVER
R7373 220
R7383 220
R7385 1k
AB_DUC1
AB_DUB1
AB_DUA1
AB_DUC0
AB_DUB0
AB_DUA0
CLK22
PCL_N
LE11
CLK12
C7329 50V 100p
DM
NC
VDD2
GND
ODE
VDD1
FDET1
FX
CLR
BLK
A1
A2
A3
A4
A5
A6
LEN
FS
FDET
1
2
3
4
5
6
7

C4-BOARD TNPA3564 (1/2)


TO C5-BOARD (C51)
C41
IC7405
C0JBAZ001120
BUFFER
IC7401
C0JBAZ001120
BUFFER
IC7402
C0JBAZ001120
BUFFER
IC7403
C0JBAZ001120
BUFFER
IC7404
C0JBAZ001120
BUFFER
CB9
TO PANEL DATA DRIVER
CB8
TO PANEL DATA DRIVER
C43
TO C5-BOARD (C53)
D7407 B0HCMM000014
D7408 B0HCMM000014
D7405 B0HCMM000014
D7406 B0HCMM000014
L7401 J0JJC0000011
L7402 J0JJC0000011
L7403 J0JJC0000011
L7404 J0JJC0000011
VDA_75V
78V_L
C4_5V
C4_5_3V
5V
A
B
C
D
E
1
2
3
4
5
6
7
8

TH-50PHD8BK/BS/EK/ES C4-Board (1 of 2) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
C4-Board (1 of 2) Schematic Diagram

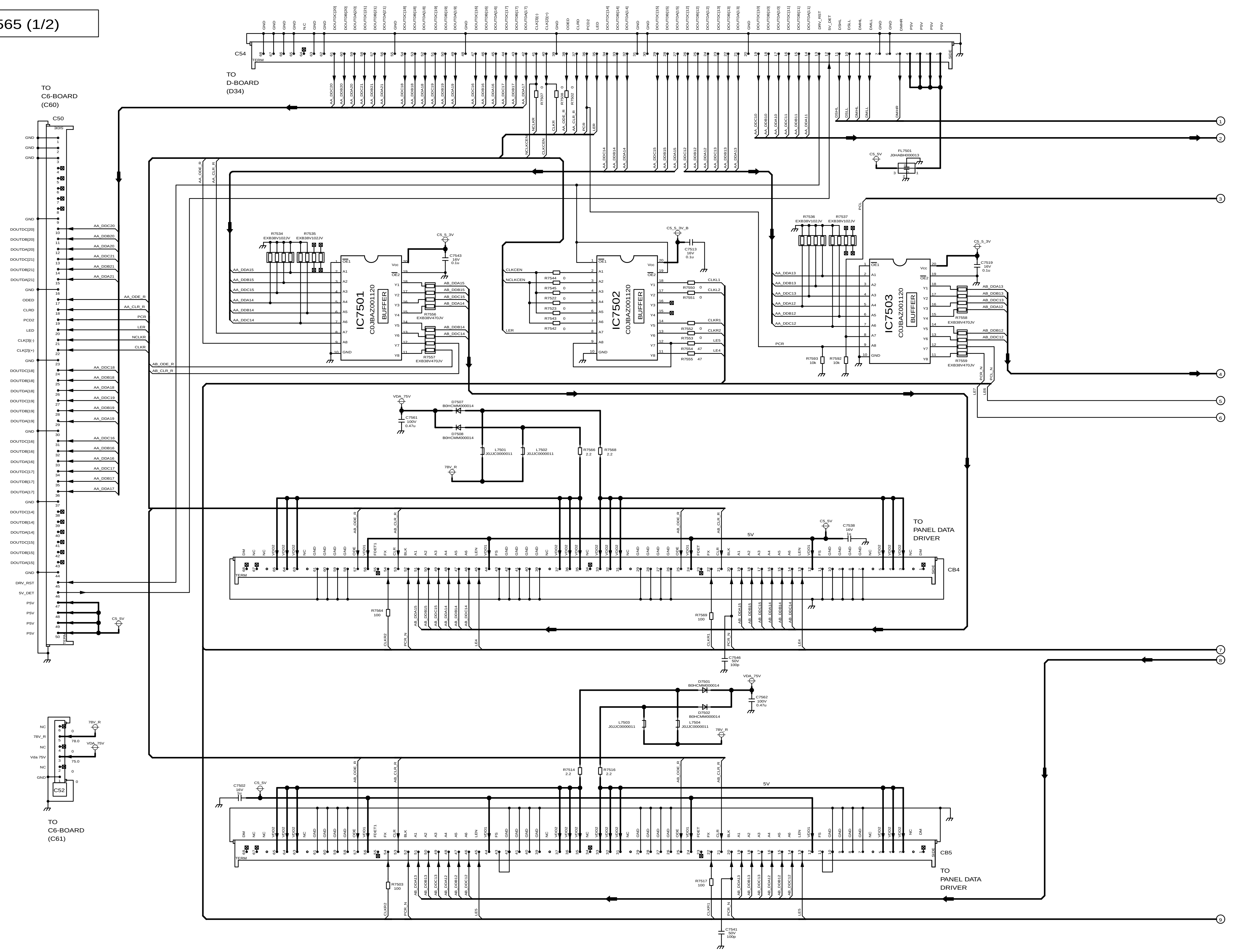


1
2
3
4
5
6
7
8
VDA_75V
C7422 100V 0.47u
D7411 B0HCMM000014
D7412 B0HCMM000014
L7405 J0JJC0000011
L7406 J0JJC0000011
78V_L
R7481 2.2
R7485 2.2
C4_5V
5V
CB11
TERM
R7472 1k
TO PANEL DATA DRIVER
R7477 220
R7487 220
AB_ODE_L
AB_CLR_L
AB_DDA1
AB_DDB1
AB_DDC1
AB_DDA0
AB_DDB0
AB_DDC0
CLK22
PCL_N
LE11
CLK12
C7453 50V 100p
C7440 16V 1u
DM
NC
VDD2
GND
ODE
VDD1
FDET1
FX
CLR
BLK
A1
A2
A3
A4
A5
A6
LEN
FS
FDET
SIDE
TO SS-BOARD (SS44)
C44
5V
NC(URH)
NUEL
UEH
USL
USH
UML
UMH
DRV_SOS9
NC(URL)
GND
DMHR
DSHL
DSLL
DMHL
DMLL
DRV_SOS2
78V_R
78V_L
VDA_75V
C42
TO SS-BOARD (SS42)
78V_R
NC
78V_L
Vda 75V
78.0
75.0
VDA_75V
C7423 100V 0.47u
D7409 B0HCMM000014
D7410 B0HCMM000014
L7407 J0JJC0000011
L7408 J0JJC0000011
78V_L
R7482 2.2
R7486 2.2
C4_5V
C7441 16V 1u
5V
CB10
TERM
TO PANEL DATA DRIVER
R7478 220
R7488 220
AB_DDA3
AB_DDB3
AB_DDC3
AB_DDA2
AB_DDB2
AB_DDC2
CLK22
PCL_N
LE10
CLK12
C7452 50V 100p
!
C4-BOARD TNPA3564 (2/2)

TH-50PHD8BK/BS/EK/ES
C4-Board (2 of 2) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
C4-Board (2 of 2) Schematic Diagram

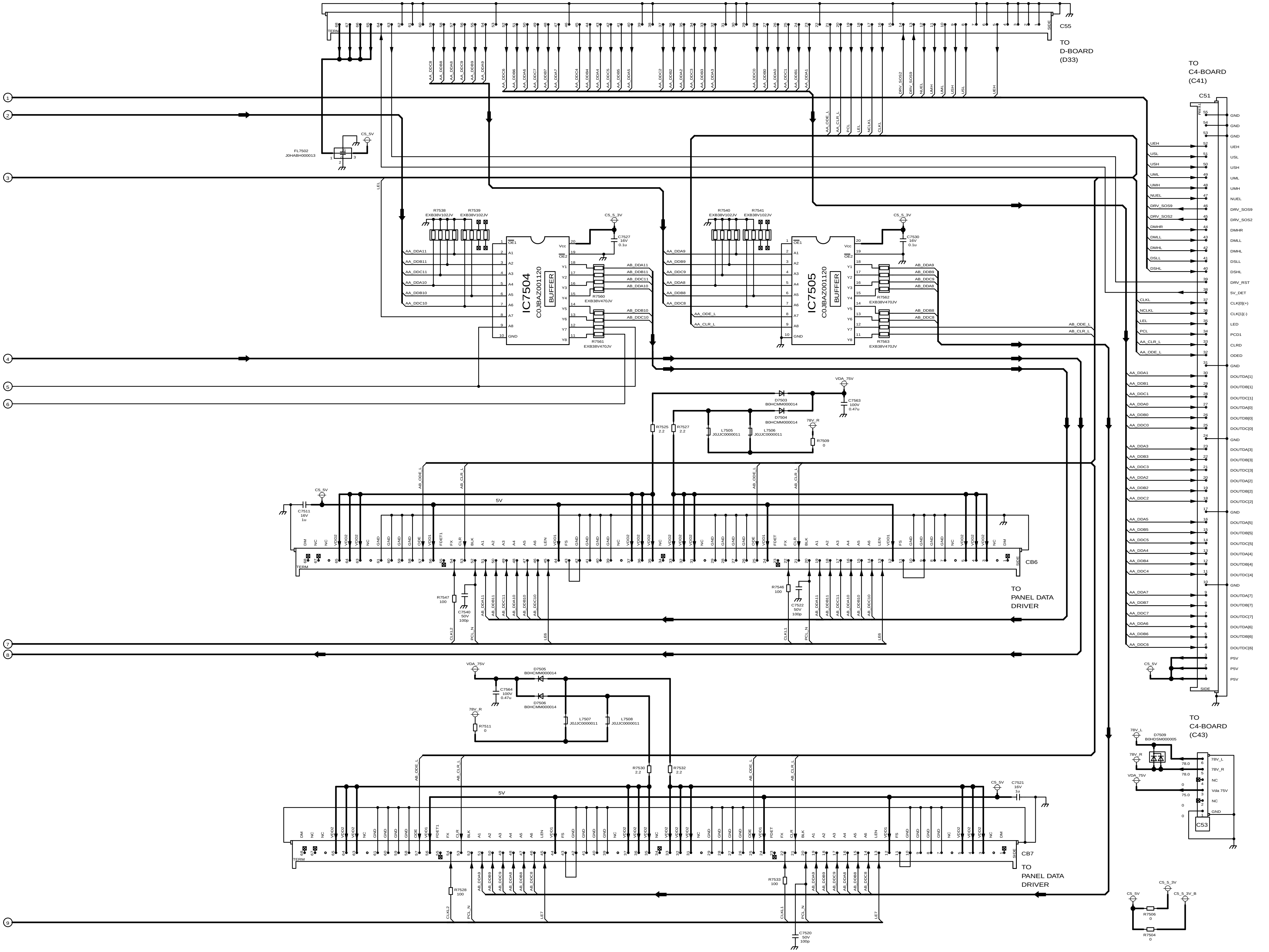
⚠ C5-BOARD TNPA3565 (1/2)


TO D-BOARD (D34)
C54
TO C6-BOARD (C60)
C50
IC7501
C0JBAZ001120
BUFFER
IC7502
C0JBAZ001120
BUFFER
IC7503
C0JBAZ001120
BUFFER
R7534 EXB38V102JV
R7535 EXB38V102JV
R7536 EXB38V102JV
R7537 EXB38V102JV
R7556 EXB38V470JV
R7557 EXB38V470JV
R7558 EXB38V470JV
R7559 EXB38V470JV
FL7501 J0HABH000013
C5_5V
C5_5_3V
C5_5_3V_B
C7543 16V 0.1u
C7513 16V 0.1u
C7519 16V 0.1u
VDA_75V
78V_R
D7507 B0HCMM000014
D7508 B0HCMM000014
D7501 B0HCMM000014
D7502 B0HCMM000014
L7501 J0JJC0000011
L7502 J0JJC0000011
L7503 J0JJC0000011
L7504 J0JJC0000011
C7561 100V 0.47u
C7562 100V 0.47u
R7566 2.2
R7568 2.2
R7514 2.2
R7516 2.2
R7564 100
R7569 100
R7503 100
R7517 100
C7546 50V 100p
C7541 50V 100p
C7538 16V 1u
C7502 16V 1u
TO PANEL DATA DRIVER
CB4
5V
TO PANEL DATA DRIVER
CB5
TO C6-BOARD (C61)
C52
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

TH-50PHD8BK/BS/EK/ES
C5-Board (1 of 2) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
C5-Board (1 of 2) Schematic Diagram

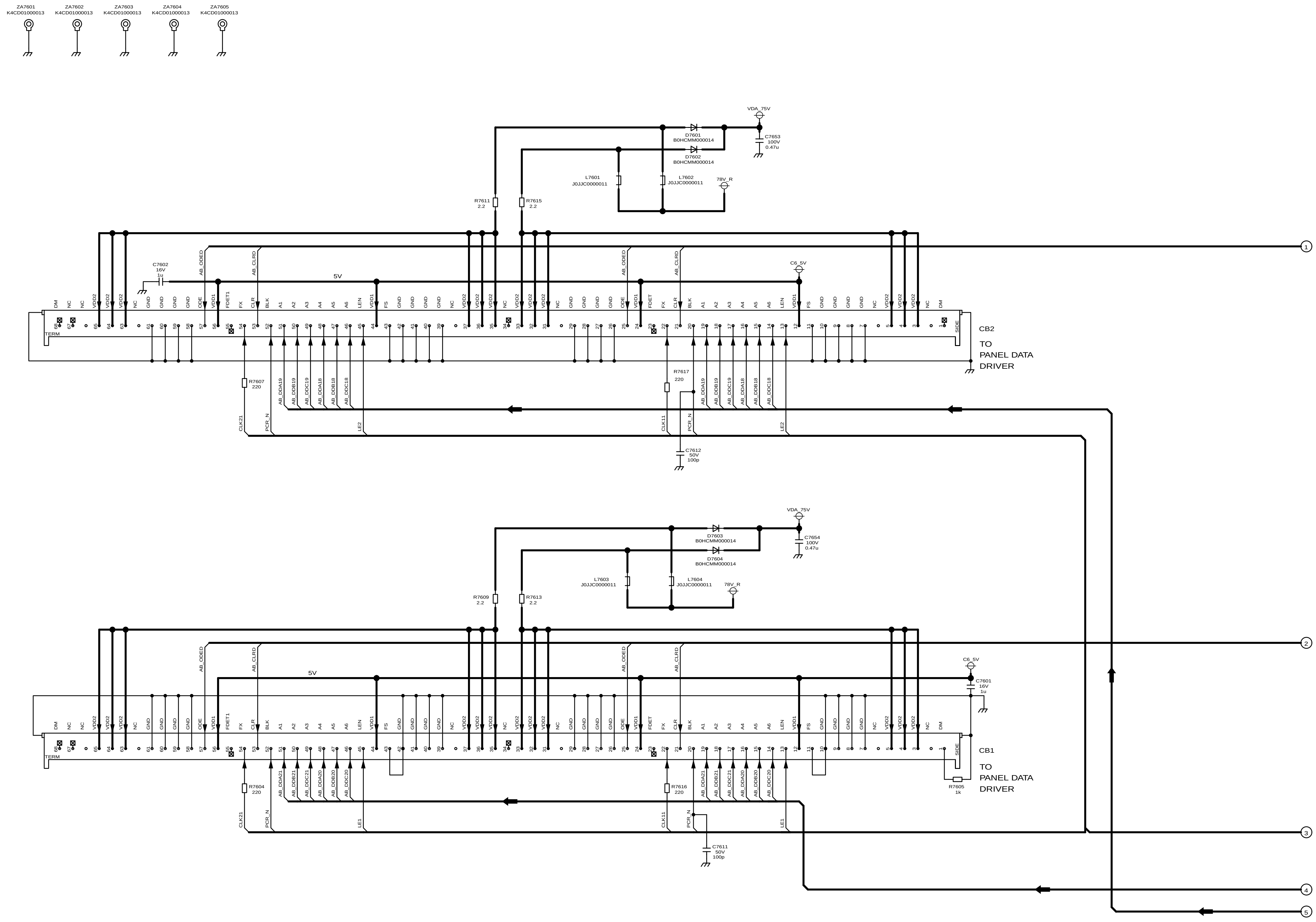
⚠ C5-BOARD TNPA3565 (2/2)


C55
TO D-BOARD (D33)
TO C4-BOARD (C41)
C51
FL7502 J0HABH000013
C5_5V
R7538 EXB38V102JV
R7539 EXB38V102JV
IC7504 C0JBAZ001120 BUFFER
R7560 EXB38V470JV
R7561 EXB38V470JV
C7527 16V 0.1u
C5_5_3V
R7540 EXB38V102JV
R7541 EXB38V102JV
IC7505 C0JBAZ001120 BUFFER
R7562 EXB38V470JV
R7563 EXB38V470JV
C7530 16V 0.1u
VDA_75V
D7503 B0HCMM000014
D7504 B0HCMM000014
C7563 100V 0.47u
L7505 J0JJC0000011
L7506 J0JJC0000011
R7525 2.2
R7527 2.2
78V_R
R7509 0
C7511 16V 1u
5V
CB6
TO PANEL DATA DRIVER
R7547 100
C7540 50V 100p
R7546 100
C7522 50V 100p
D7505 B0HCMM000014
D7506 B0HCMM000014
C7564 100V 0.47u
R7511 0
L7507 J0JJC0000011
L7508 J0JJC0000011
R7530 2.2
R7532 2.2
C7521 16V 1u
CB7
TO PANEL DATA DRIVER
R7528 100
R7533 100
C7520 50V 100p
TO C4-BOARD (C43)
78V_L
D7509 B0HDSM000005
C53
78V_L
78V_R
NC
Vda 75V
NC
GND
C5_5V
C5_5_3V
C5_5_3V_B
R7506 0
R7504 0

TH-50PHD8BK/BS/EK/ES
C5-Board (2 of 2) Schematic Diagram

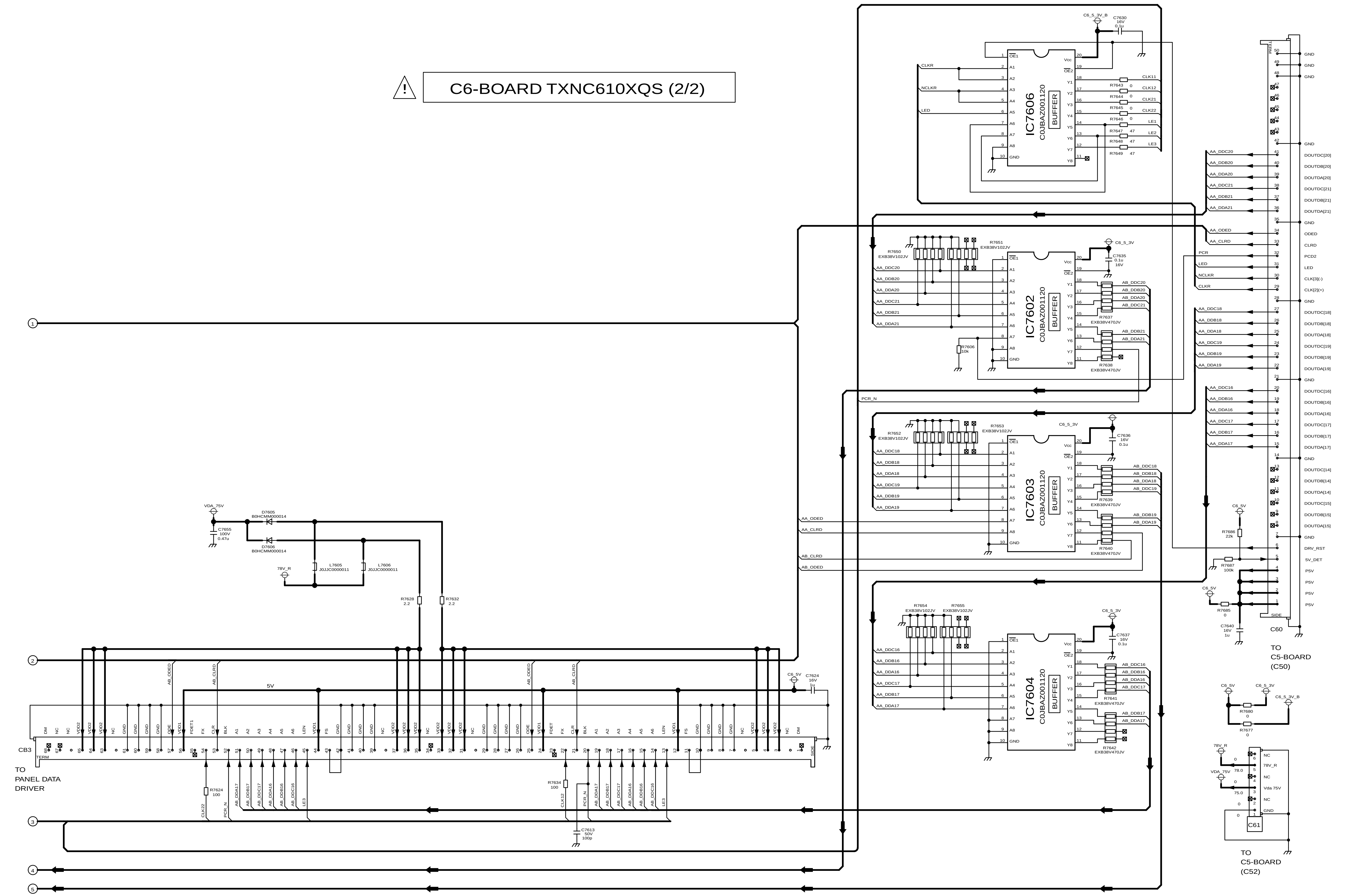
TH-50PHD8BK/BS/EK/ES
C5-Board (2 of 2) Schematic Diagram

⚠ C6-BOARD TXNC610XQS (1/2)


ZA7601 K4CD01000013
ZA7602 K4CD01000013
ZA7603 K4CD01000013
ZA7604 K4CD01000013
ZA7605 K4CD01000013
VDA_75V
C7653 100V 0.47u
D7601 B0HCMM000014
D7602 B0HCMM000014
L7601 J0JJC0000011
L7602 J0JJC0000011
78V_R
R7611 2.2
R7615 2.2
C7602 16V 1u
5V
C6_5V
AB_ODED
AB_CLRD
DM NC NC VDD2 VDD2 VDD2 NC GND GND GND GND ODE VDD1 FDET1 FX CLR BLK A1 A2 A3 A4 A5 A6 LEN VDD1 FS GND GND GND GND NC VDD2 VDD2 VDD2 NC VDD2 VDD2 VDD2 NC GND GND GND GND ODE VDD1 FDET FX CLR BLK A1 A2 A3 A4 A5 A6 LEN VDD1 FS GND GND GND GND NC VDD2 VDD2 VDD2 NC DM
TERM
SIDE
CB2
TO PANEL DATA DRIVER
R7607 220
R7617 220
AB_DDA19 AB_DDB19 AB_DDC19 AB_DDA18 AB_DDB18 AB_DDC18
CLK21 PCR_N LE2
CLK11 PCR_N LE2
C7612 50V 100p
①
VDA_75V
C7654 100V 0.47u
D7603 B0HCMM000014
D7604 B0HCMM000014
L7603 J0JJC0000011
L7604 J0JJC0000011
78V_R
R7609 2.2
R7613 2.2
5V
C6_5V
C7601 16V 1u
CB1
TO PANEL DATA DRIVER
R7605 1k
R7604 220
R7616 220
AB_DDA21 AB_DDB21 AB_DDC21 AB_DDA20 AB_DDB20 AB_DDC20
CLK21 PCR_N LE1
CLK11 PCR_N LE1
C7611 50V 100p
②
③
④
⑤
A B C D E
1 2 3 4 5 6 7 8

TH-50PHD8BK/BS/EK/ES
C6-Board (1 of 2) Schematic Diagram

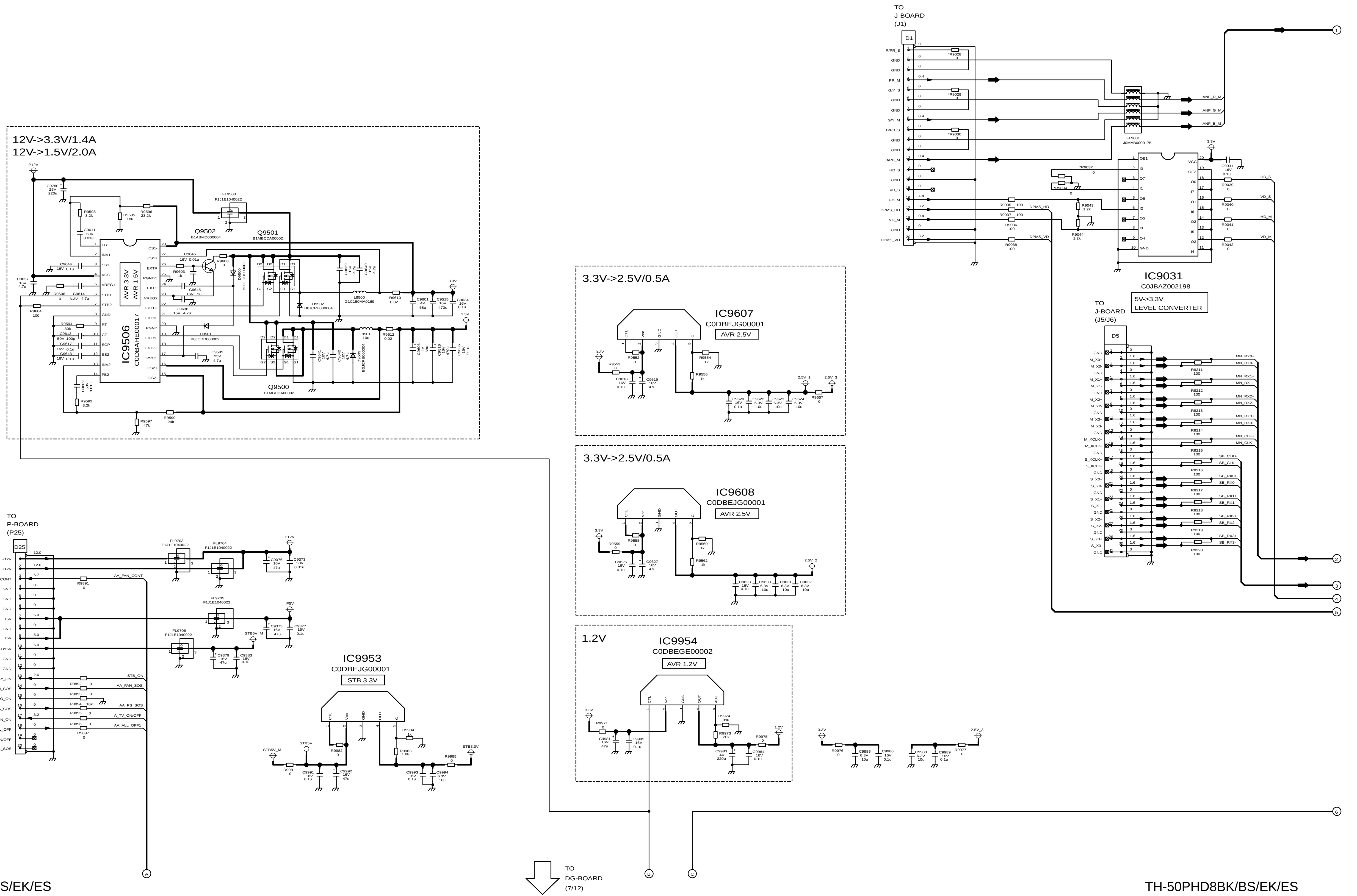
C6-BOARD TXNC610XQS (2/2)

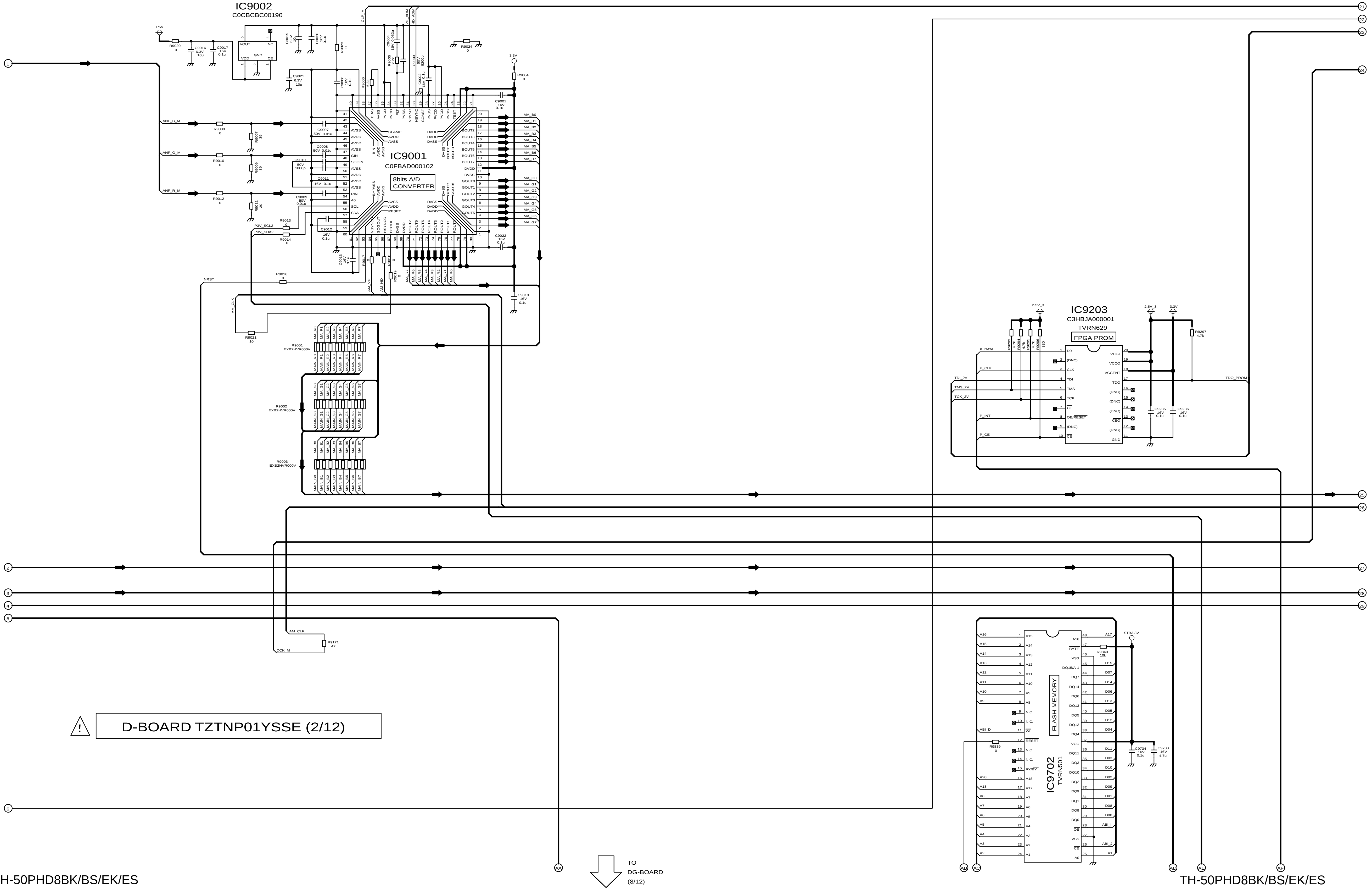

IC7606
C0JBAZ001120
BUFFER
IC7602
C0JBAZ001120
BUFFER
IC7603
C0JBAZ001120
BUFFER
IC7604
C0JBAZ001120
BUFFER
C6_5_3V_B
C7630 16V 0.1u
C6_5_3V
C7635 0.1u 16V
C7636 16V 0.1u
C7637 16V 0.1u
CLKR
NCLKR
LED
PCR
PCR_N
CLK11
CLK12
CLK21
CLK22
LE1
LE2
LE3
R7643 0
R7644 0
R7645 0
R7646 0
R7647 47
R7648 47
R7649 47
R7650 EXB38V102JV
R7651 EXB38V102JV
R7652 EXB38V102JV
R7653 EXB38V102JV
R7654 EXB38V102JV
R7655 EXB38V102JV
R7637 EXB38V470JV
R7638 EXB38V470JV
R7639 EXB38V470JV
R7640 EXB38V470JV
R7641 EXB38V470JV
R7642 EXB38V470JV
R7606 10k
AA_DDC20
AA_DDB20
AA_DDA20
AA_DDC21
AA_DDB21
AA_DDA21
AA_DDC18
AA_DDB18
AA_DDA18
AA_DDC19
AA_DDB19
AA_DDA19
AA_DDC16
AA_DDB16
AA_DDA16
AA_DDC17
AA_DDB17
AA_DDA17
AB_DDC20
AB_DDB20
AB_DDA20
AB_DDC21
AB_DDB21
AB_DDA21
AB_DDC18
AB_DDB18
AB_DDA18
AB_DDC19
AB_DDB19
AB_DDA19
AB_DDC16
AB_DDB16
AB_DDA16
AB_DDC17
AB_DDB17
AB_DDA17
AA_ODED
AA_CLRD
AB_CLRD
AB_ODED
C60
GND
DOUTDC[20]
DOUTDB[20]
DOUTDA[20]
DOUTDC[21]
DOUTDB[21]
DOUTDA[21]
ODED
CLRD
PCD2
LED
CLK[3](-)
CLK[2](+)
DOUTDC[18]
DOUTDB[18]
DOUTDA[18]
DOUTDC[19]
DOUTDB[19]
DOUTDA[19]
DOUTDC[16]
DOUTDB[16]
DOUTDA[16]
DOUTDC[17]
DOUTDB[17]
DOUTDA[17]
DOUTDC[14]
DOUTDB[14]
DOUTDA[14]
DOUTDC[15]
DOUTDB[15]
DOUTDA[15]
DRV_RST
5V_DET
P5V
TERM
SIDE
C6_5V
R7686 22k
R7687 100k
R7685 0
C7640 16V 1u
TO
C5-BOARD
(C50)
R7680 0
R7677 0
78V_R
VDA_75V
NC
78V_R
Vda 75V
GND
78.0
75.0
C61
TO
C5-BOARD
(C52)
VDA_75V
C7655 100V 0.47u
D7605 B0HCMM000014
D7606 B0HCMM000014
L7605 J0JJC0000011
L7606 J0JJC0000011
78V_R
R7628 2.2
R7632 2.2
5V
C6_5V
C7624 16V 1u
CB3
TO
PANEL DATA
DRIVER
R7624 100
R7634 100
C7613 50V 100p
CLK22
CLK12
AB_DDA17
AB_DDB17
AB_DDC17
AB_DDA16
AB_DDB16
AB_DDC16
LE3
DM
NC
VDD2
GND
ODE
VDD1
FDET1
FX
CLR
BLK
A1
A2
A3
A4
A5
A6
LEN
FS
①
②
③
④
⑤

TH-50PHD8BK/BS/EK/ES
C6-Board (2 of 2) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
C6-Board (2 of 2) Schematic Diagram

D-BOARD TZTNP01YSSE (1/12)

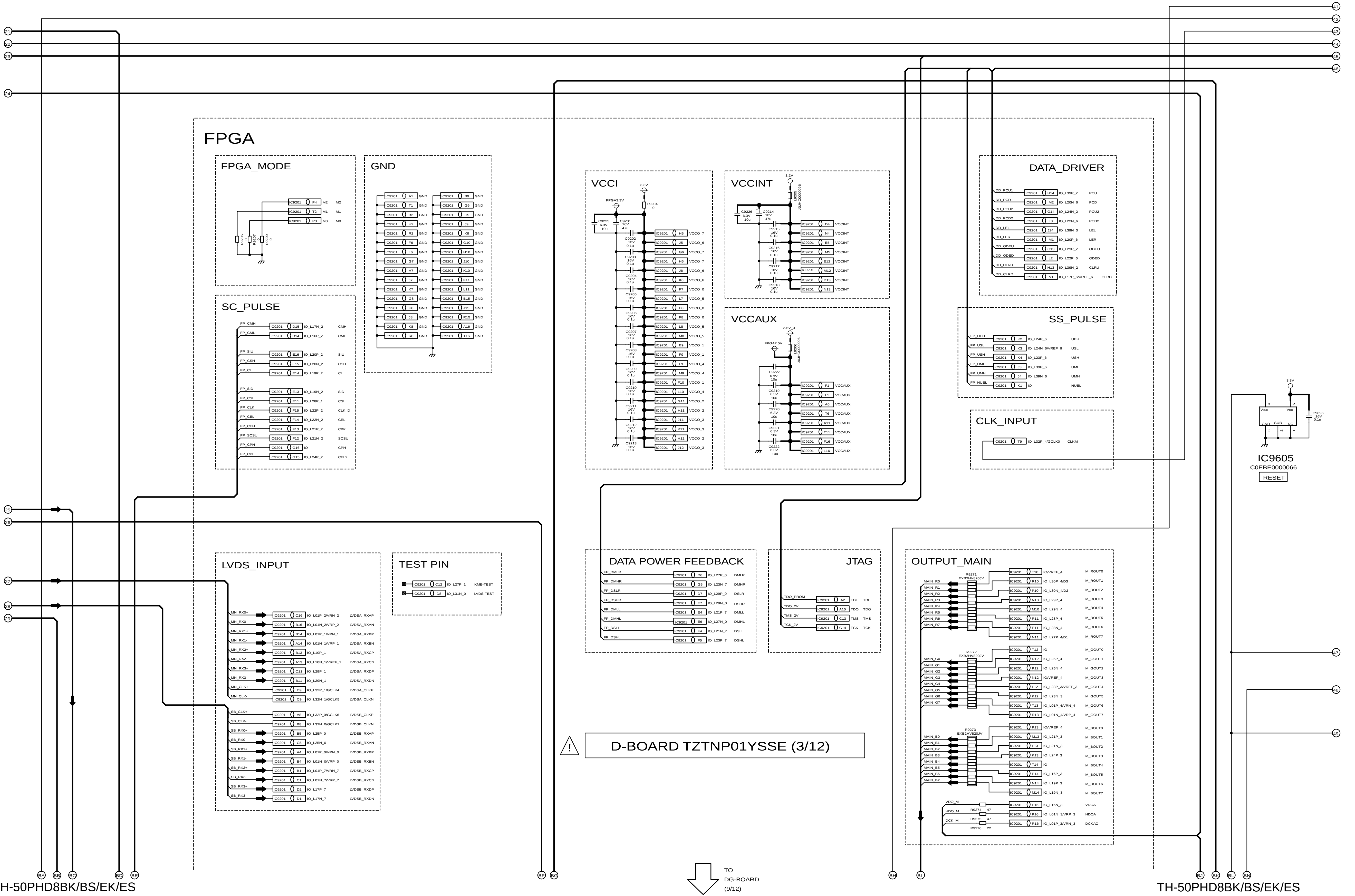

12V->3.3V/1.4A
12V->1.5V/2.0A
P12V
FL9500
F1J1E1040022
Q9502
B1ABMD000004
Q9501
B1MBCDA00002
IC9506
C0DBAHE00017
AVR 3.3V
AVR 1.5V
L9500
G1C150MA0169
L9501
10u
Q9500
B1MBCDA00002
D9501
B0JCDD000002
D9502
B0JCPE000004
3.3V
1.5V
TO
P-BOARD
(P25)
D25
+12V
FAN_CONT
GND
+5V
STBY5V
F_STBY_ON
FAN_SOS
ECO_ON
PS_SOS
PANEL_MAIN_ON
ALL_OFF
RUSH_ON/OFF
KILL_SOS
FL9703
FL9704
FL9705
FL9706
F1J1E1040022
AA_FAN_CONT
STB_ON
AA_FAN_SOS
AA_PS_SOS
A_TV_ON/OFF
AA_ALL_OFF1
P12V
P5V
STB5V_M
IC9953
C0DBEJG00001
STB 3.3V
CTL
Vcc
GND
OUT
C
STB5V
STB3.3V
3.3V->2.5V/0.5A
IC9607
C0DBEJG00001
AVR 2.5V
2.5V_1
2.5V_3
3.3V->2.5V/0.5A
IC9608
C0DBEJG00001
AVR 2.5V
2.5V_2
1.2V
IC9954
C0DBEGE00002
AVR 1.2V
ADJ
1.2V
TO
J-BOARD
(J1)
D1
R/PR_S
PR_M
G/Y_S
G/Y_M
B/PB_S
B/PB_M
HD_S
VD_S
HD_M
DPMS_HD
VD_M
DPMS_VD
FL9001
J0MAB0000175
ANF_R_M
ANF_G_M
ANF_B_M
IC9031
C0JBAZ002198
5V->3.3V
LEVEL CONVERTER
TO
J-BOARD
(J5/J6)
D5
M_X0+
M_X0-
M_X1+
M_X1-
M_X2+
M_X2-
M_X3+
M_X3-
M_XCLK+
M_XCLK-
S_XCLK+
S_XCLK-
S_X0+
S_X0-
S_X1+
S_X1-
S_X2+
S_X2-
S_X3+
S_X3-
MN_RX0+
MN_RX0-
MN_RX1+
MN_RX1-
MN_RX2+
MN_RX2-
MN_RX3+
MN_RX3-
MN_CLK+
MN_CLK-
SB_CLK+
SB_CLK-
SB_RX0+
SB_RX0-
SB_RX1+
SB_RX1-
SB_RX2+
SB_RX2-
SB_RX3+
SB_RX3-
TO
DG-BOARD
(7/12)
A
B
C
1
2
3
4
5
6


IC9002
C0CBCBC00190
IC9001
C0FBAD000102
8bits A/D
CONVERTER
IC9203
C3HBJA000001
TVRN629
FPGA PROM
IC9702
TVRN501
FLASH MEMORY
R9001
EXB2HVR000V
R9002
EXB2HVR000V
R9003
EXB2HVR000V
ANF_B_M
ANF_G_M
ANF_R_M
P3V_SCL2
P3V_SDA2
NRST
AM_CLK
DCK_M
P_DATA
P_CLK
TDI_2V
TMS_2V
TCK_2V
P_INT
P_CE
TDO_PROM
P5V
3.3V
2.5V_3
STB3.3V
TO
DG-BOARD
(8/12)
AA
AB
AC
AD
AE
AF
10
11
12
13
14
15
16
17
18

D-BOARD TZTNP01YSSE (2/12)

TH-50PHD8BK/BS/EK/ES
D-Board (2 of 12) Schematic Diagram

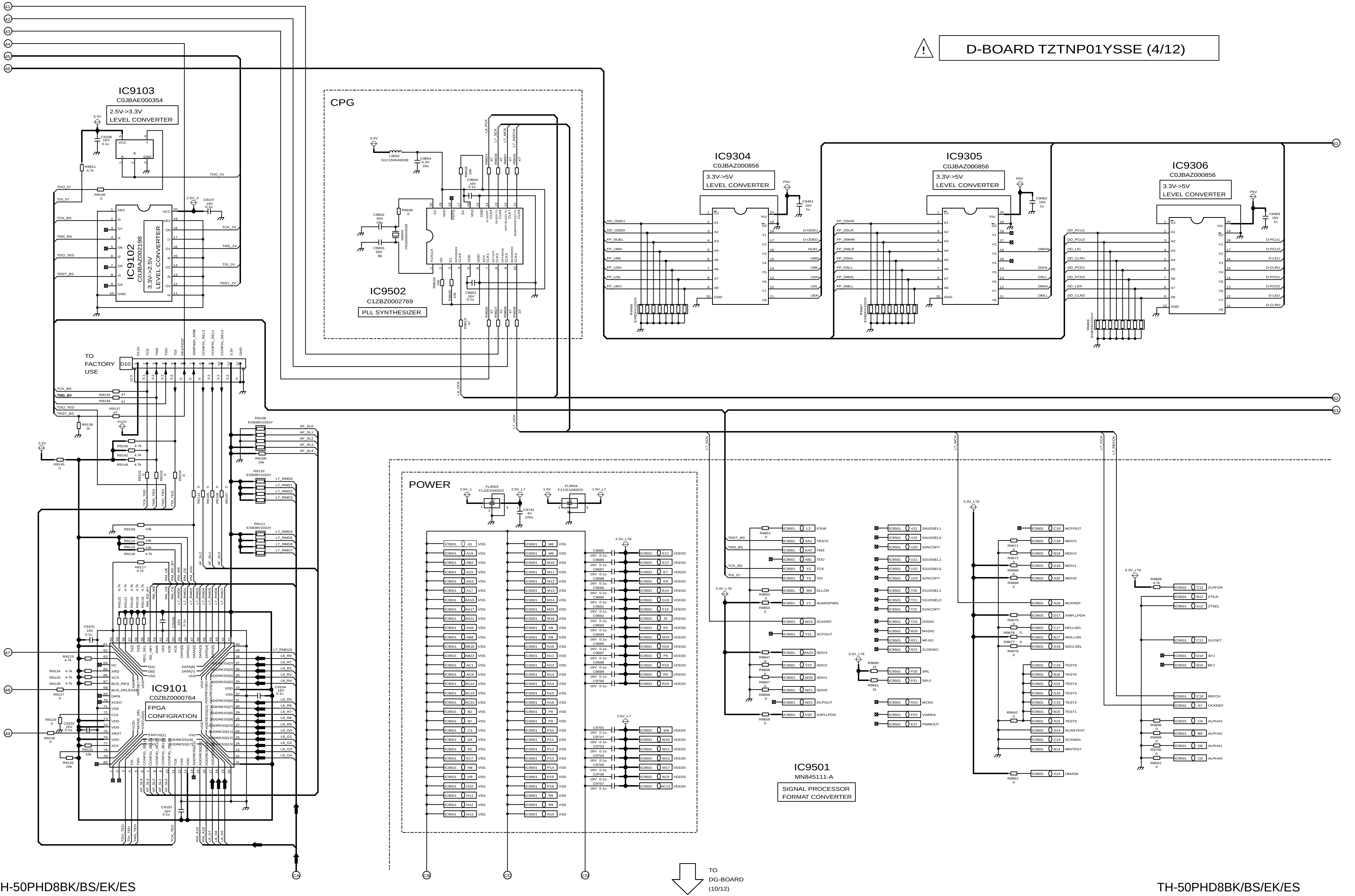
TH-50PHD8BK/BS/EK/ES
D-Board (2 of 12) Schematic Diagram


FPGA
FPGA_MODE
GND
VCCI
VCCINT
VCCAUX
DATA_DRIVER
SS_PULSE
CLK_INPUT
SC_PULSE
LVDS_INPUT
TEST PIN
DATA POWER FEEDBACK
JTAG
OUTPUT_MAIN
IC9201
IC9605
C0EBE0000066
RESET
3.3V
1.2V
2.5V_3
FPGA3.3V
FPGA2.5V
R9271 EXB2HV820JV
R9272 EXB2HV820JV
R9273 EXB2HV820JV
R9274 47
R9275 47
R9276 22
KME-TEST
LVDS-TEST
D-BOARD TZTNP01YSSE (3/12)
TO
DG-BOARD
(9/12)
21
22
23
24
25
26
27
28
29
41
42
43
44
45
46
47
48
49
BA
BB
BC
BD
BE
BF
BG
BH
BI
BJ
BK
BL
BN

TH-50PHD8BK/BS/EK/ES
D-Board (3 of 12) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
D-Board (3 of 12) Schematic Diagram

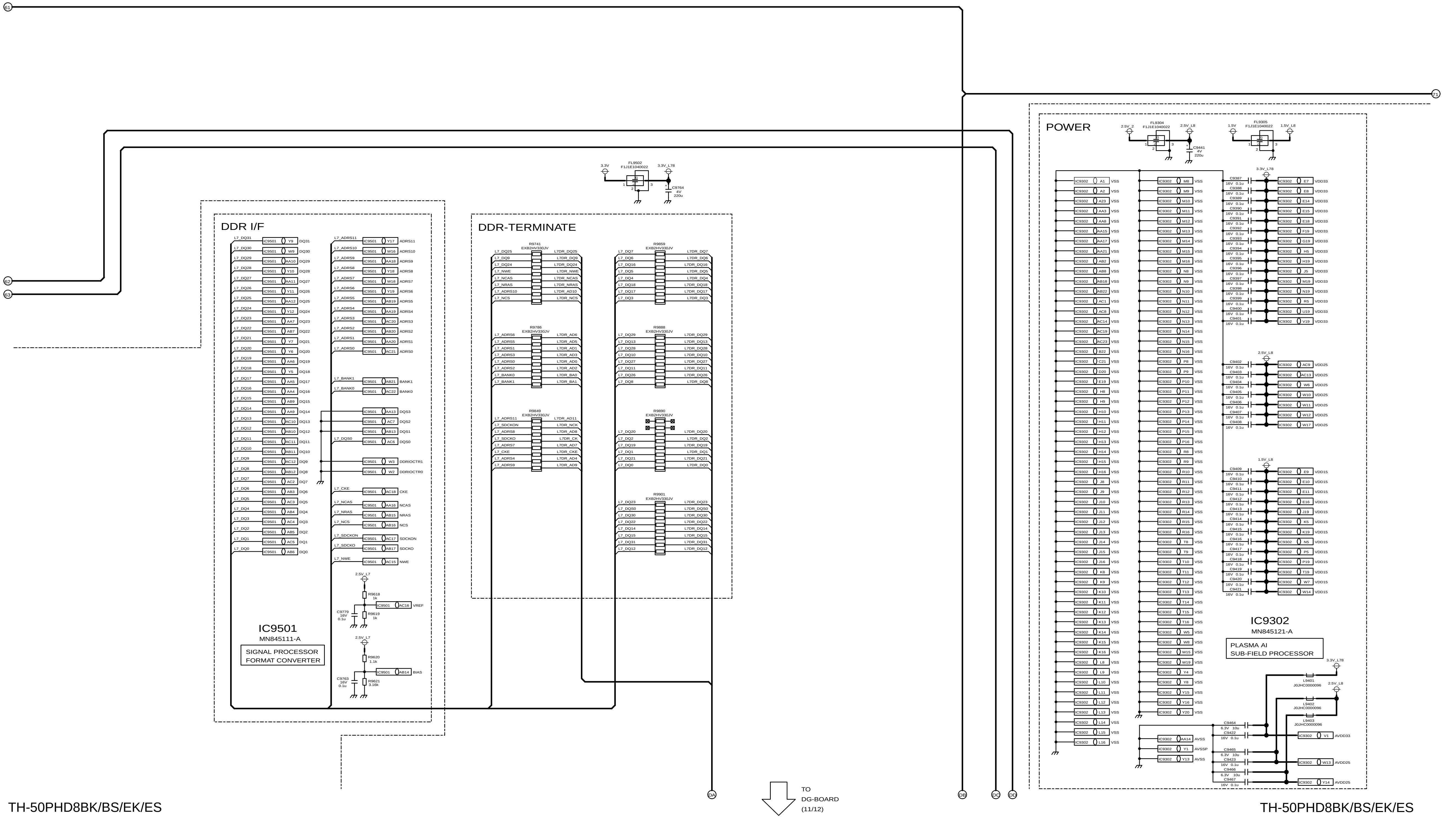
D-BOARD TZTNP01YSSE (4/12)


IC9103
C0JBAE000354
2.5V->3.3V
LEVEL CONVERTER
IC9102
C0JBAZ002198
3.3V->2.5V
LEVEL CONVERTER
CPG
IC9502
C1ZBZ0002769
PLL SYNTHESIZER
IC9304
C0JBAZ000856
3.3V->5V
LEVEL CONVERTER
IC9305
C0JBAZ000856
3.3V->5V
LEVEL CONVERTER
IC9306
C0JBAZ000856
3.3V->5V
LEVEL CONVERTER
TO
FACTORY
USE
D10
IC9101
C0ZBZ0000764
FPGA
CONFIGRATION
POWER
IC9501
MN845111-A
SIGNAL PROCESSOR
FORMAT CONVERTER
TO
DG-BOARD
(10/12)
CA
CB
CC
CD
61
62
63
47
48
49

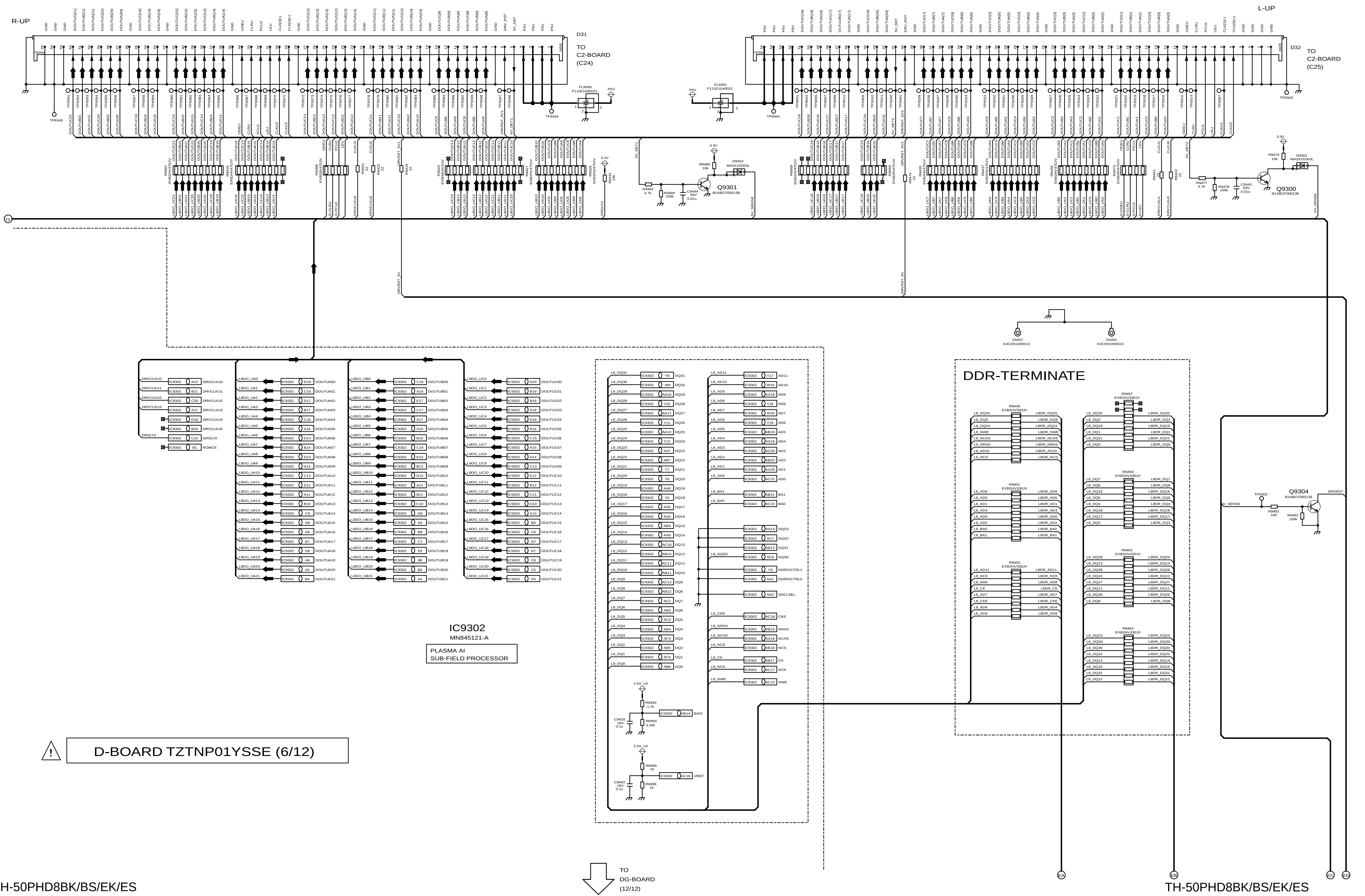
TH-50PHD8BK/BS/EK/ES
D-Board (4 of 12) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
D-Board (4 of 12) Schematic Diagram

D-BOARD TZTNP01YSSE (5/12)

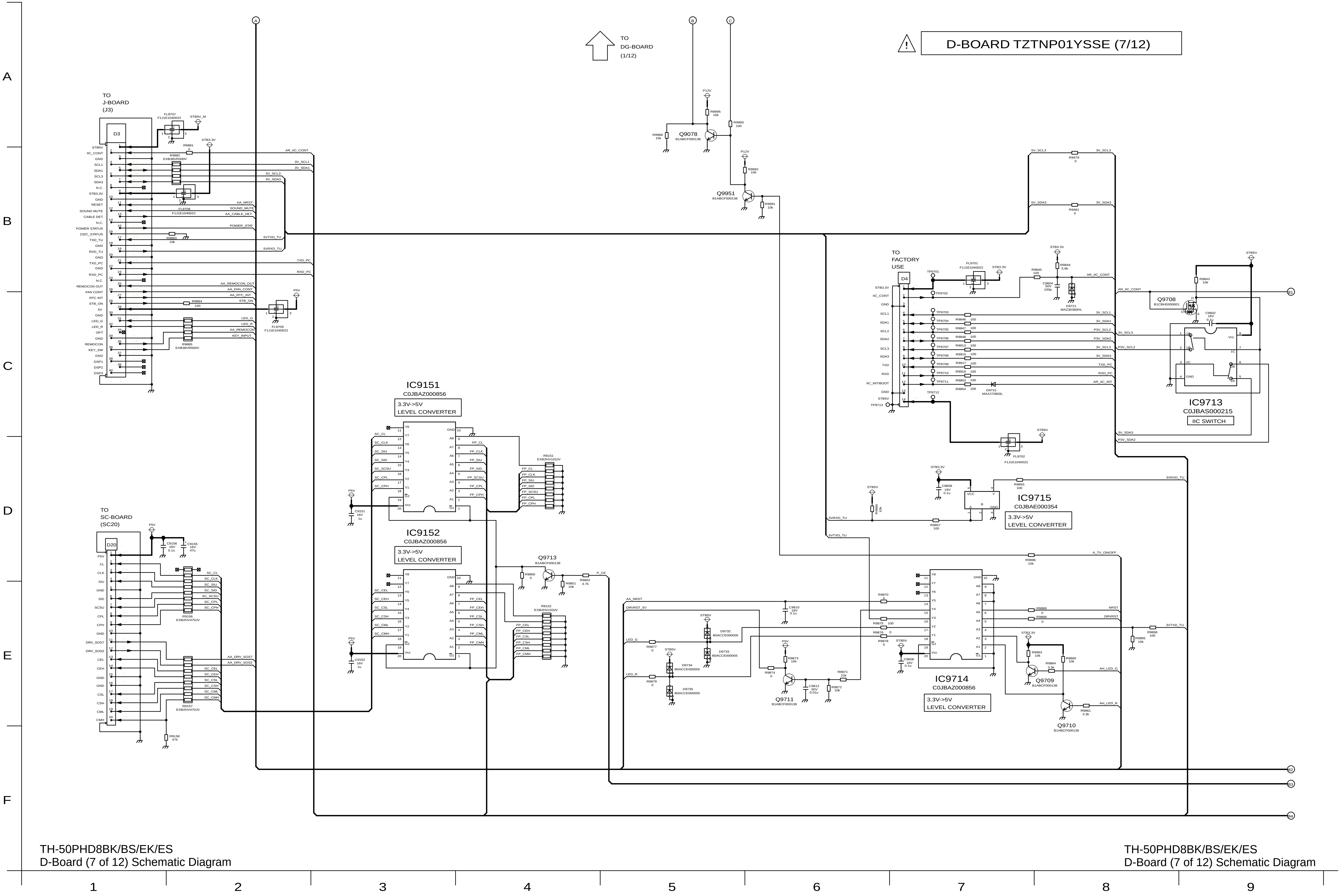


61
62
63
71
DDR I/F
IC9501
MN845111-A
SIGNAL PROCESSOR
FORMAT CONVERTER
DDR-TERMINATE
FL9502
F1J1E1040022
3.3V
3.3V_L78
C9764
4V
220u
POWER
FL9304
F1J1E1040022
FL9305
F1J1E1040022
2.5V_2
2.5V_L8
1.5V
1.5V_L8
C9441
4V
220u
IC9302
MN845121-A
PLASMA AI
SUB-FIELD PROCESSOR
L9401
L9402
L9403
AVDD33
AVDD25
DA
DB
DC
DD
TO
DG-BOARD
(11/12)


R-UP
L-UP
D31
TO
C2-BOARD
(C24)
D32
TO
C2-BOARD
(C25)
FL9300
F1J1E1040022
FL9301
F1J1E1040022
Q9301
B1ABCF000138
Q9300
B1ABCF000138
Q9304
B1ABCF000138
IC9302
MN845121-A
PLASMA AI
SUB-FIELD PROCESSOR
DDR-TERMINATE
D-BOARD TZTNP01YSSE (6/12)
TO
DG-BOARD
(12/12)

TH-50PHD8BK/BS/EK/ES
D-Board (6 of 12) Schematic Diagram

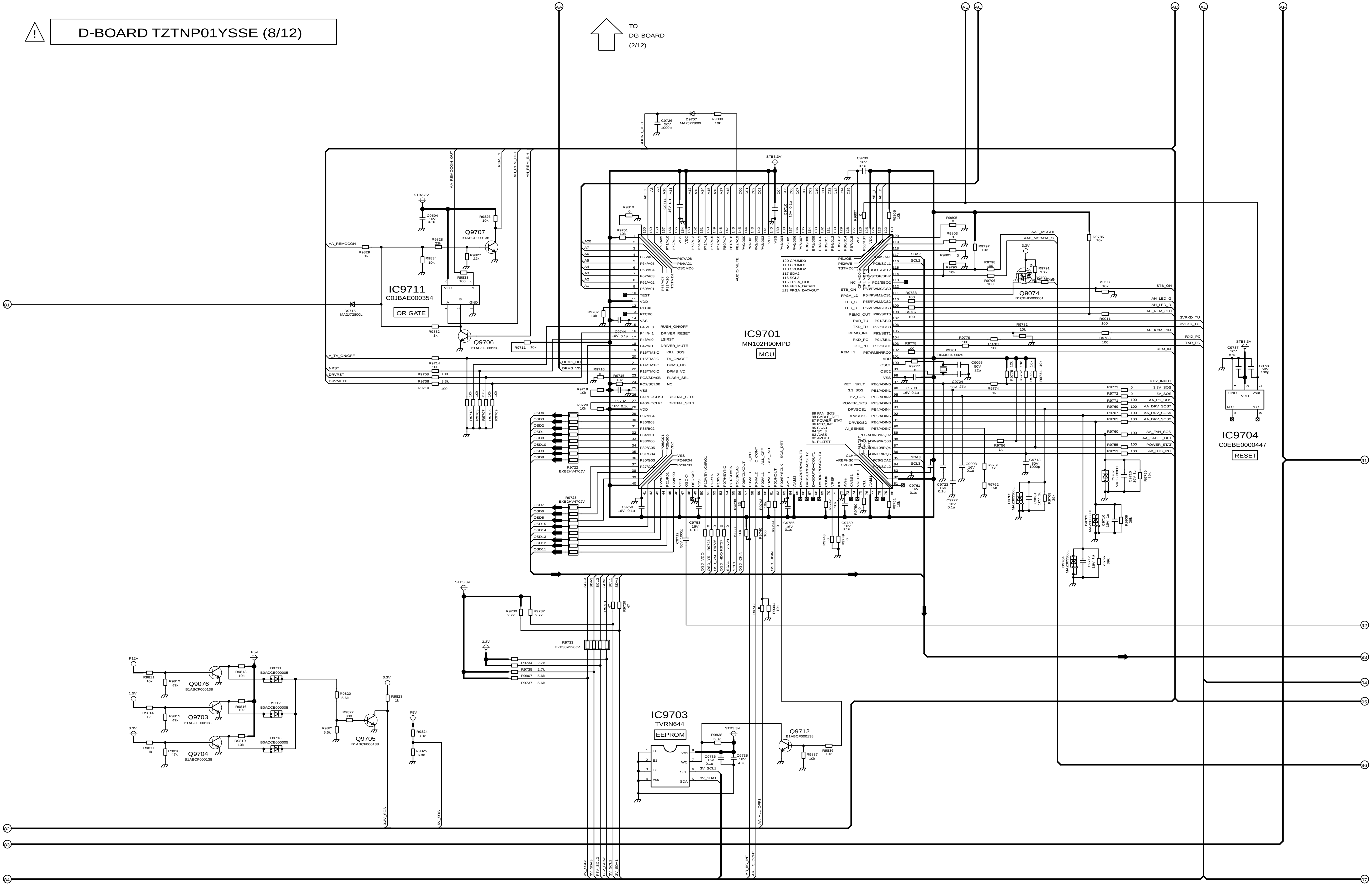
TH-50PHD8BK/BS/EK/ES
D-Board (6 of 12) Schematic Diagram


D-BOARD TZTNP01YSSE (7/12)
TO DG-BOARD (1/12)
TO J-BOARD (J3)
D3
FL9707 F1J1E1040022
STB5V_M
STB3.3V
R9881 0
R9882 EXB38V R000V
FL9708 F1J1E1040022
R9883 10k
R9884 100
P5V
FL9709 F1J1E1040022
R9885 EXB38V R000V
STB5V
IIC_CONT
GND
SCL1
SDA1
SCL3
SDA3
N.C.
STB3.3V
RESET
SOUND MUTE
CABLE DET
POWER STATUS
232C_STATUS
TXD_TU
RXD_TU
TXD_PC
RXD_PC
REMOCON OUT
FAN CONT
RTC INT
STB_ON
5V
LED_G
LED_R
OPT
REMOCON
KEY_SW
DSP1
DSP2
DSP3
AR_IIC_CONT
3V_SCL1
3V_SDA1
5V_SCL3
5V_SDA3
AA_NRST
SOUND_MUTE
AA_CABLE_DET
POWER_STAT
5VTXD_TU
5VRXD_TU
TXD_PC
RXD_PC
AA_REMOCON_OUT
AA_FAN_CONT
AA_RTC_INT
STB_ON
LED_G
LED_R
AA_REMOCON
KEY_INPUT
P12V
R9995 10k
R9986 15k
Q9078 B1ABCF000138
R9993 100
R9992 10k
Q9951 B1ABCF000138
R9991 10k
R9479 0
R9481 0
5V_SCL3
3V_SCL3
5V_SDA3
3V_SDA3
TO FACTORY USE
D4
TP9701
FL9701 F1J1E1040022
R9845 100
R9844 5.6k
C9604 50V 100p
D9721 MAZ30360HL
AR_IIC_CONT
R9843 10k
Q9708 B1CBHD000001
C9602 16V 0.1u
IC9713 C0JBAS000215
IIC SWITCH
3V_SCL3
P3V_SCL2
3V_SCL1
3V_SDA1
P3V_SDA2
TXD_PC
RXD_PC
AR_IIC_INT
D9731 MA2J72800L
TP9712
TP9713
FL9702 F1J1E1040022
3V_SDA3
P3V_SDA2
IC9151 C0JBAZ000856
3.3V->5V LEVEL CONVERTER
SC_CL
SC_CLK
SC_SIU
SC_SID
SC_SCSU
SC_CPL
SC_CPH
FP_CL
FP_CLK
FP_SIU
FP_SID
FP_SCSU
FP_CPL
FP_CPH
R9151 EXB2HV103JV
C9151 16V 1u
IC9152 C0JBAZ000856
3.3V->5V LEVEL CONVERTER
SC_CEL
SC_CEH
SC_CSL
SC_CSH
SC_CML
SC_CMH
FP_CEL
FP_CEH
FP_CSL
FP_CSH
FP_CML
FP_CMH
R9152 EXB2HV103JV
C9152 16V 1u
Q9713 B1ABCF000138
R9850 0
R9851 10k
R9852 4.7k
P_CE
TO SC-BOARD (SC20)
D20
C9156 16V 0.1u
C9155 16V 47u
R9156 EXB2HV470JV
R9157 EXB2HV470JV
R9158 47k
AA_DRV_SOS7
AA_DRV_SOS2
IC9715 C0JBAE000354
3.3V->5V LEVEL CONVERTER
C9608 16V 0.1u
R9855 100
R9857 100
R9860 10k
3VRXD_TU
5VRXD_TU
5VTXD_TU
R9996 10k
A_TV_ON/OFF
IC9714 C0JBAZ000856
3.3V->5V LEVEL CONVERTER
AA_NRST
DRVRST_5V
LED_G
LED_R
R9877 0
R9879 0
D9732 B0ACCE000005
D9733 B0ACCE000005
D9734 B0ACCE000005
D9735 B0ACCE000005
C9610 16V 0.1u
R9873 10k
R9874 0
Q9711 B1ABCF000138
C9612 50V 0.01u
R9871 22k
R9872 10k
R9870 0
R9875 100
R9876 0
R9878 0
C9606 16V 0.1u
R9869 0
R9868 0
NRST
DRVRST
R9866 100
R9865 10k
3VTXD_TU
R9863 10k
R9864 3.3k
Q9709 B1ABCF000138
R9860 10k
AH_LED_G
R9861 3.3k
Q9710 B1ABCF000138
AH_LED_R
A
B
C
B1
B2
B3
B4
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

TH-50PHD8BK/BS/EK/ES
D-Board (7 of 12) Schematic Diagram

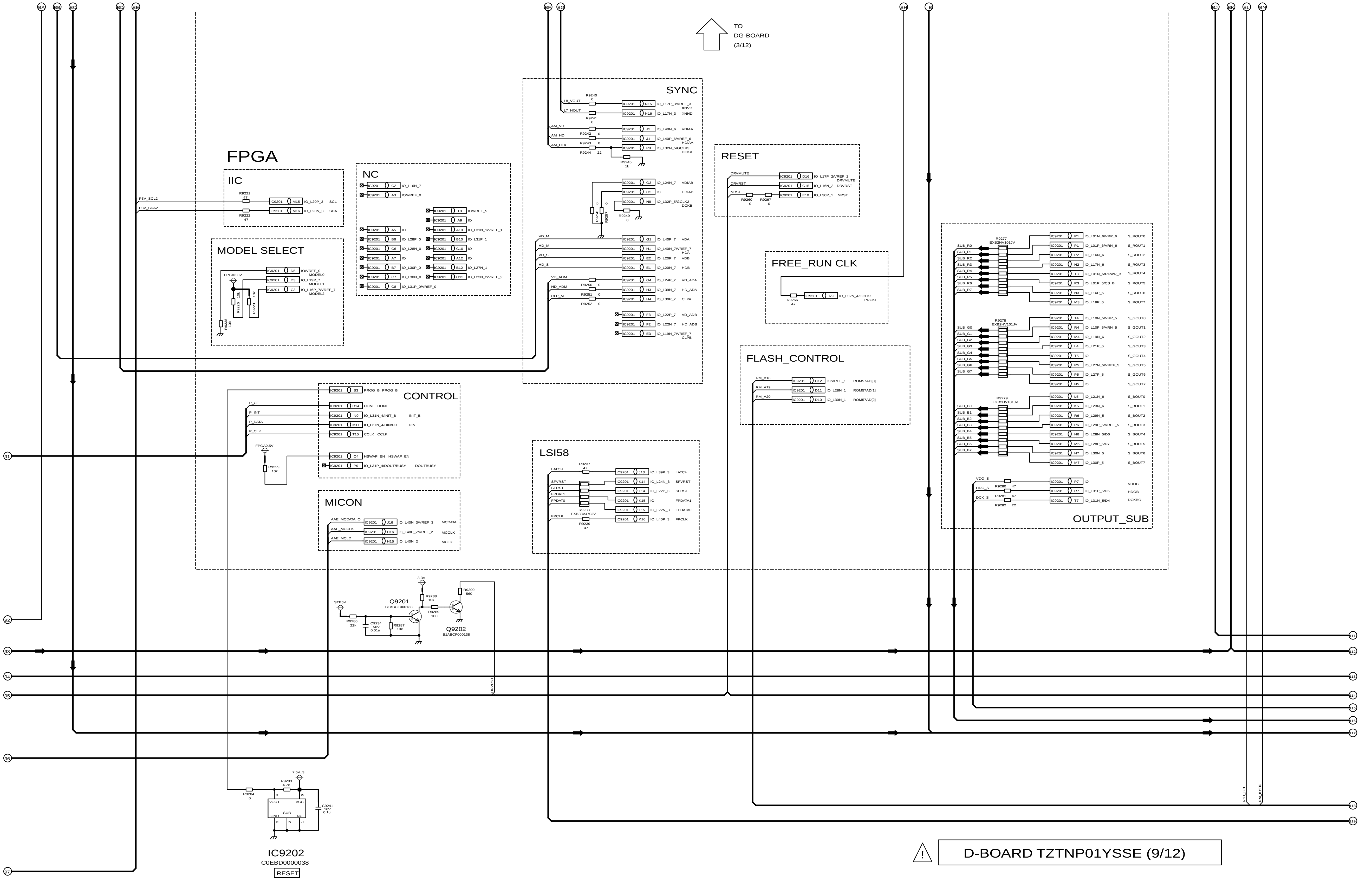
TH-50PHD8BK/BS/EK/ES
D-Board (7 of 12) Schematic Diagram

⚠ D-BOARD TZTNP01YSSE (8/12)


TO
DG-BOARD
(2/12)
IC9701
MN102H90MPD
MCU
IC9711
C0JBAE000354
OR GATE
IC9703
TVRN644
EEPROM
IC9704
C0EBE0000447
RESET
Q9074
B1CBHD000001
Q9707
B1ABCF000138
Q9706
B1ABCF000138
Q9076
B1ABCF000138
Q9703
B1ABCF000138
Q9704
B1ABCF000138
Q9705
B1ABCF000138
Q9712
B1ABCF000138
D9707
MA2J72800L
D9715
MA2J72800L
D9711
B0ACCE000005
D9712
B0ACCE000005
D9713
B0ACCE000005
R9722
EXB2HV470JV
R9723
EXB2HV470JV
R9733
EXB38V220JV
X9701
H0J400400025
STB3.3V
3.3V
P12V
1.5V
P5V
5V
AA_REMOCON
A_TV_ON/OFF
NRST
DRVRST
DRVMUTE
SOUND_MUTE
AA_REMOCON_OUT
REM_IN
AH_REM_OUT
AH_REM_INH
DPMS_HD
DPMS_VD
OSD1
OSD2
OSD3
OSD4
OSD5
OSD6
OSD7
OSD8
OSD9
OSD10
OSD11
OSD12
OSD13
OSD14
OSD15
AAE_MCCLK
AAE_MCDATA_O
STB_ON
AH_LED_G
AH_LED_R
AH_REM_OUT
3VRXD_TU
3VTXD_TU
AH_REM_INH
RXD_PC
TXD_PC
REM_IN
KEY_INPUT
3.3V_SOS
5V_SOS
AA_PS_SOS
AA_DRV_SOS7
AA_DRV_SOS9
AA_DRV_SOS2
AA_FAN_SOS
AA_CABLE_DET
POWER_STAT
AA_RTC_INT
3V_SCL3
3V_SDA3
P3V_SCL2
P3V_SDA2
3V_SCL1
3V_SDA1
3.3V_SOS
5V_SOS
AA_ALL_OFF1
AA_IIC_INT
AA_IIC_CONT
AA
AB
AC
AD
AE
AF
B1
B2
B3
B4
G1
G2
G3
G4
G5
G6
G7

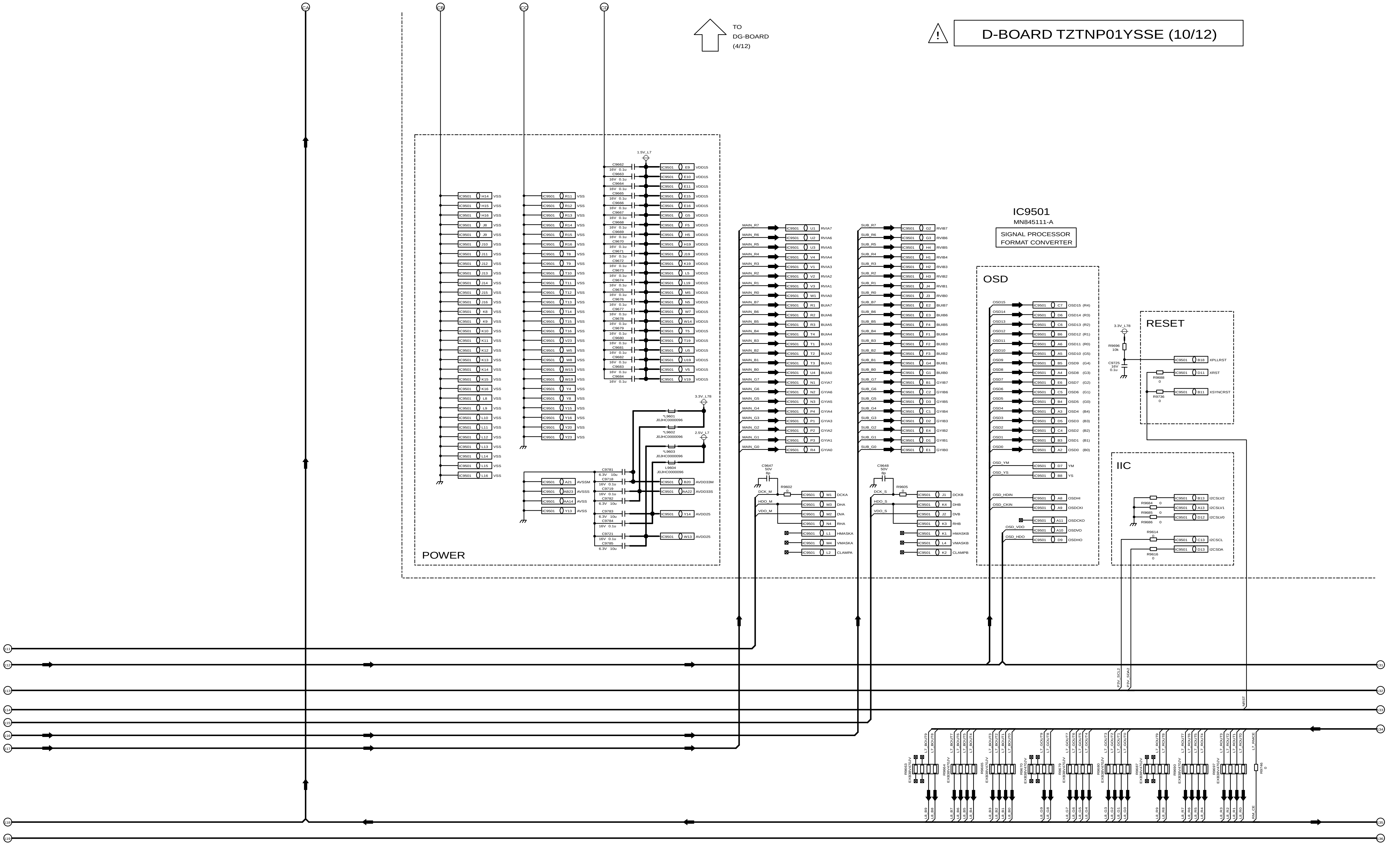
TH-50PHD8BK/BS/EK/ES
D-Board (8 of 12) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
D-Board (8 of 12) Schematic Diagram


TO
DG-BOARD
(3/12)
FPGA
IIC
P3V_SCL2
P3V_SDA2
R9221
47
R9222
47
MODEL SELECT
FPGA3.3V
NC
SYNC
L8_VOUT
L7_HOUT
AM_VD
AM_HD
AM_CLK
VD_M
HD_M
VD_S
HD_S
VD_ADM
HD_ADM
CLP_M
RESET
DRVMUTE
DRVRST
NRST
FREE_RUN CLK
FLASH_CONTROL
RM_A18
RM_A19
RM_A20
CONTROL
P_CE
P_INT
P_DATA
P_CLK
FPGA2.5V
MICON
AAE_MCDATA_O
AAE_MCCLK
AAE_MCLD
LSI58
LATCH
SFVRST
SFRST
FPDAT1
FPDAT0
FPCLK
OUTPUT_SUB
VDO_S
HDO_S
DCK_S
Q9201
B1ABCF000138
Q9202
B1ABCF000138
STB5V
3.3V
2.5V_3
IC9202
C0EBD0000038
RESET
DRVRST
RST_3.3
RM_BYTE
D-BOARD TZTNP01YSSE (9/12)

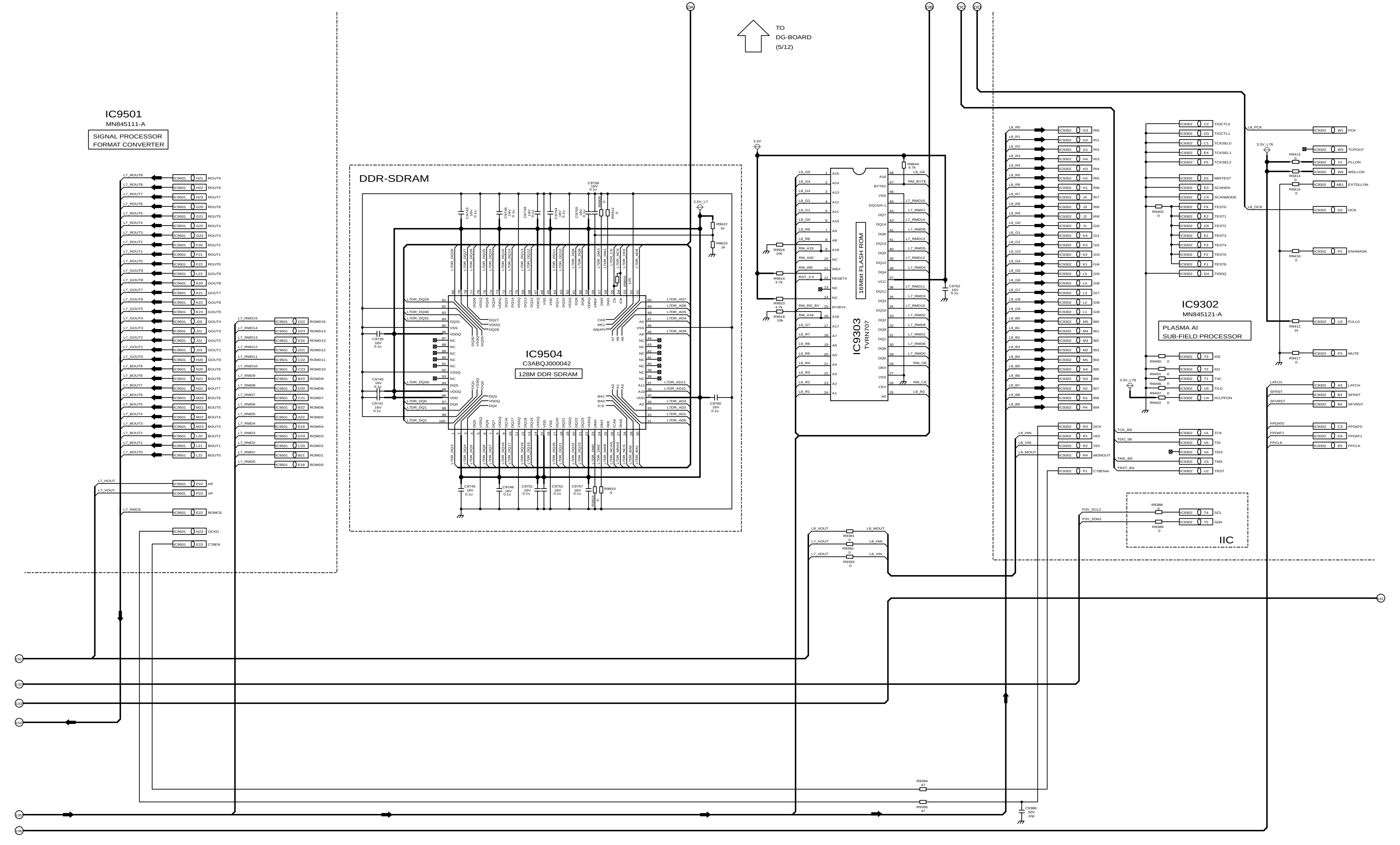
TH-50PHD8BK/BS/EK/ES
D-Board (9 of 12) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
D-Board (9 of 12) Schematic Diagram


TO
DG-BOARD
(4/12)
D-BOARD TZTNP01YSSE (10/12)
POWER
IC9501
MN845111-A
SIGNAL PROCESSOR
FORMAT CONVERTER
OSD
RESET
IIC
1.5V_L7
3.3V_L78
2.5V_L7
3.3V_L78
VSS
VDD15
AVSSM
AVSSS
AVSS
AVDD33M
AVDD33S
AVDD25
MAIN_R7 U1 RVIA7
MAIN_R6 U2 RVIA6
MAIN_R5 U3 RVIA5
MAIN_R4 V4 RVIA4
MAIN_R3 V1 RVIA3
MAIN_R2 V2 RVIA2
MAIN_R1 V3 RVIA1
MAIN_R0 W1 RVIA0
MAIN_B7 R1 BUIA7
MAIN_B6 R2 BUIA6
MAIN_B5 R3 BUIA5
MAIN_B4 T4 BUIA4
MAIN_B3 T1 BUIA3
MAIN_B2 T2 BUIA2
MAIN_B1 T3 BUIA1
MAIN_B0 U4 BUIA0
MAIN_G7 N1 GYIA7
MAIN_G6 N2 GYIA6
MAIN_G5 N3 GYIA5
MAIN_G4 P4 GYIA4
MAIN_G3 P1 GYIA3
MAIN_G2 P2 GYIA2
MAIN_G1 P3 GYIA1
MAIN_G0 R4 GYIA0
DCK_M M1 DCKA
HDO_M M3 DHA
VDO_M M2 DVA
N4 RHA
L1 HMASKA
M4 VMASKA
L2 CLAMPA
SUB_R7 G2 RVIB7
SUB_R6 G3 RVIB6
SUB_R5 H4 RVIB5
SUB_R4 H1 RVIB4
SUB_R3 H2 RVIB3
SUB_R2 H3 RVIB2
SUB_R1 J4 RVIB1
SUB_R0 J3 RVIB0
SUB_B7 E2 BUIB7
SUB_B6 E3 BUIB6
SUB_B5 F4 BUIB5
SUB_B4 F1 BUIB4
SUB_B3 F2 BUIB3
SUB_B2 F3 BUIB2
SUB_B1 G4 BUIB1
SUB_B0 G1 BUIB0
SUB_G7 B1 GYIB7
SUB_G6 C2 GYIB6
SUB_G5 D3 GYIB5
SUB_G4 C1 GYIB4
SUB_G3 D2 GYIB3
SUB_G2 E4 GYIB2
SUB_G1 D1 GYIB1
SUB_G0 E1 GYIB0
DCK_S J1 DCKB
HDO_S K4 DHB
VDO_S J2 DVB
K3 RHB
K1 HMASKB
L4 VMASKB
K2 CLAMPB
C9647 50V 8p
C9648 50V 8p
R9602 0
R9605 0
OSD15 C7 OSD15 (R4)
OSD14 D6 OSD14 (R3)
OSD13 C6 OSD13 (R2)
OSD12 B6 OSD12 (R1)
OSD11 A6 OSD11 (R0)
OSD10 A5 OSD10 (G5)
OSD9 B5 OSD9 (G4)
OSD8 A4 OSD8 (G3)
OSD7 E6 OSD7 (G2)
OSD6 C5 OSD6 (G1)
OSD5 B4 OSD5 (G0)
OSD4 A3 OSD4 (B4)
OSD3 D5 OSD3 (B3)
OSD2 C4 OSD2 (B2)
OSD1 B3 OSD1 (B1)
OSD0 A2 OSD0 (B0)
OSD_YM D7 YM
OSD_YS B8 YS
OSD_HDIN A8 OSDHI
OSD_CKIN A9 OSDCKI
A11 OSDCKO
OSD_VDO A10 OSDVO
OSD_HDO D9 OSDHO
R9696 10k
C9725 16V 0.1u
B18 XPLLRST
R9688 0 D11 XRST
R9736 0 B11 XSYNCRST
R9684 0 B13 I2CSLV2
R9685 0 A13 I2CSLV1
R9686 0 D12 I2CSLV0
R9614 0 C13 I2CSCL
R9616 0 D13 I2CSDA
F3V_SCL2
F3V_SDA2
XRST
R9663 EXB38V470JV
R9664 EXB38V470JV
R9665 EXB38V470JV
R9670 EXB38V470JV
R9679 EXB38V470JV
R9680 EXB38V470JV
R9687 EXB38V470JV
R9660 EXB38V470JV
R9697 EXB38V470JV
R9646 0
L7_RMCE
RM_CE
*L9601 J0JHC0000096
*L9602 J0JHC0000096
*L9603 J0JHC0000096
L9604 J0JHC0000096
CA
CB
CC
CD

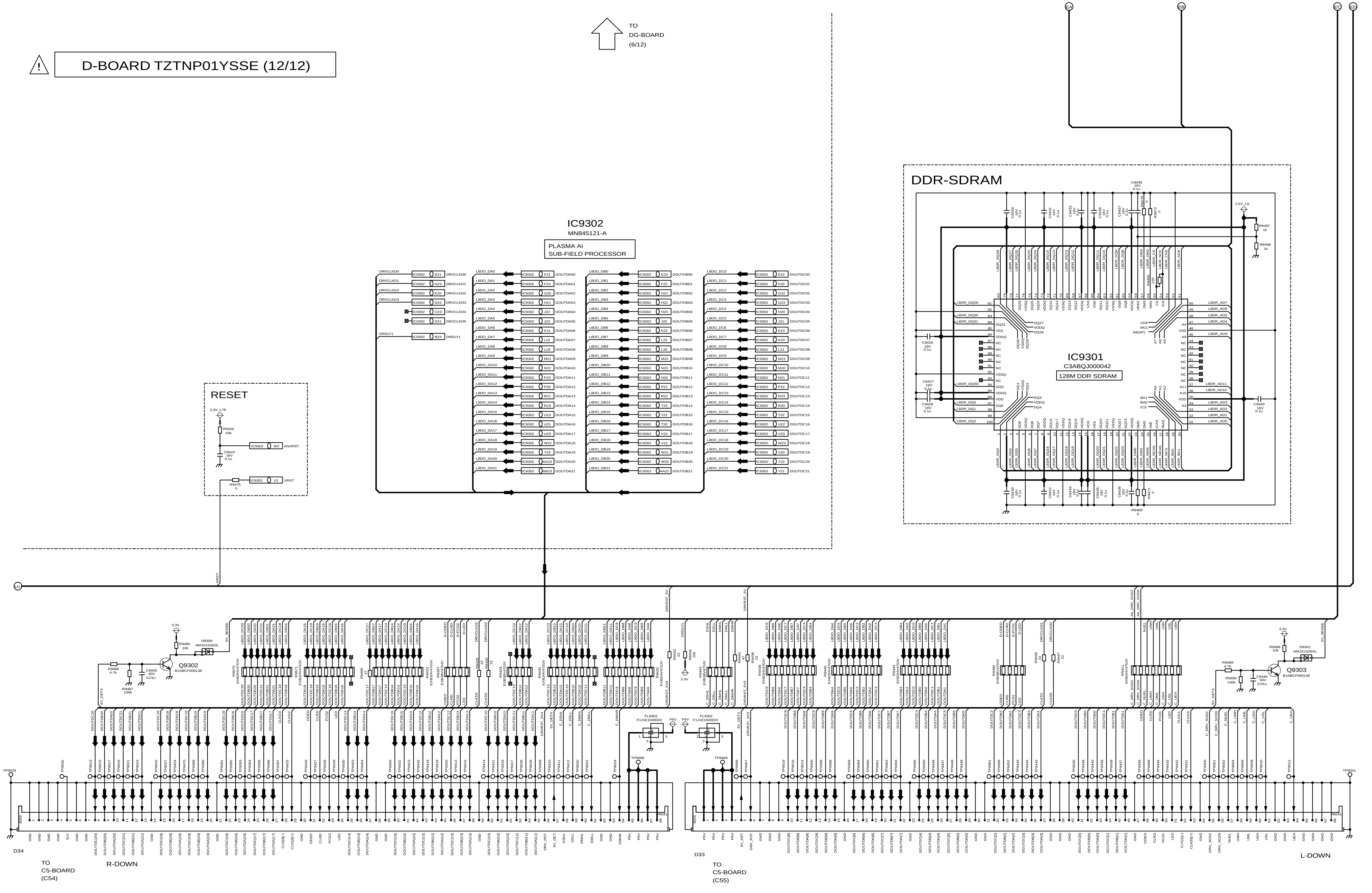
TH-50PHD8BK/BS/EK/ES
D-Board (10 of 12) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
D-Board (10 of 12) Schematic Diagram


IC9501
MN845111-A
SIGNAL PROCESSOR
FORMAT CONVERTER
DDR-SDRAM
IC9504
C3ABQJ000042
128M DDR SDRAM
TO
DG-BOARD
(5/12)
IC9303
TVRN707
16Mbit FLASH ROM
IC9302
MN845121-A
PLASMA AI
SUB-FIELD PROCESSOR
IIC
DA
DB
DC
DD
3.3V
2.5V_L7
3.3V_L78

D-BOARD TZTNP01YSSE (11/12)

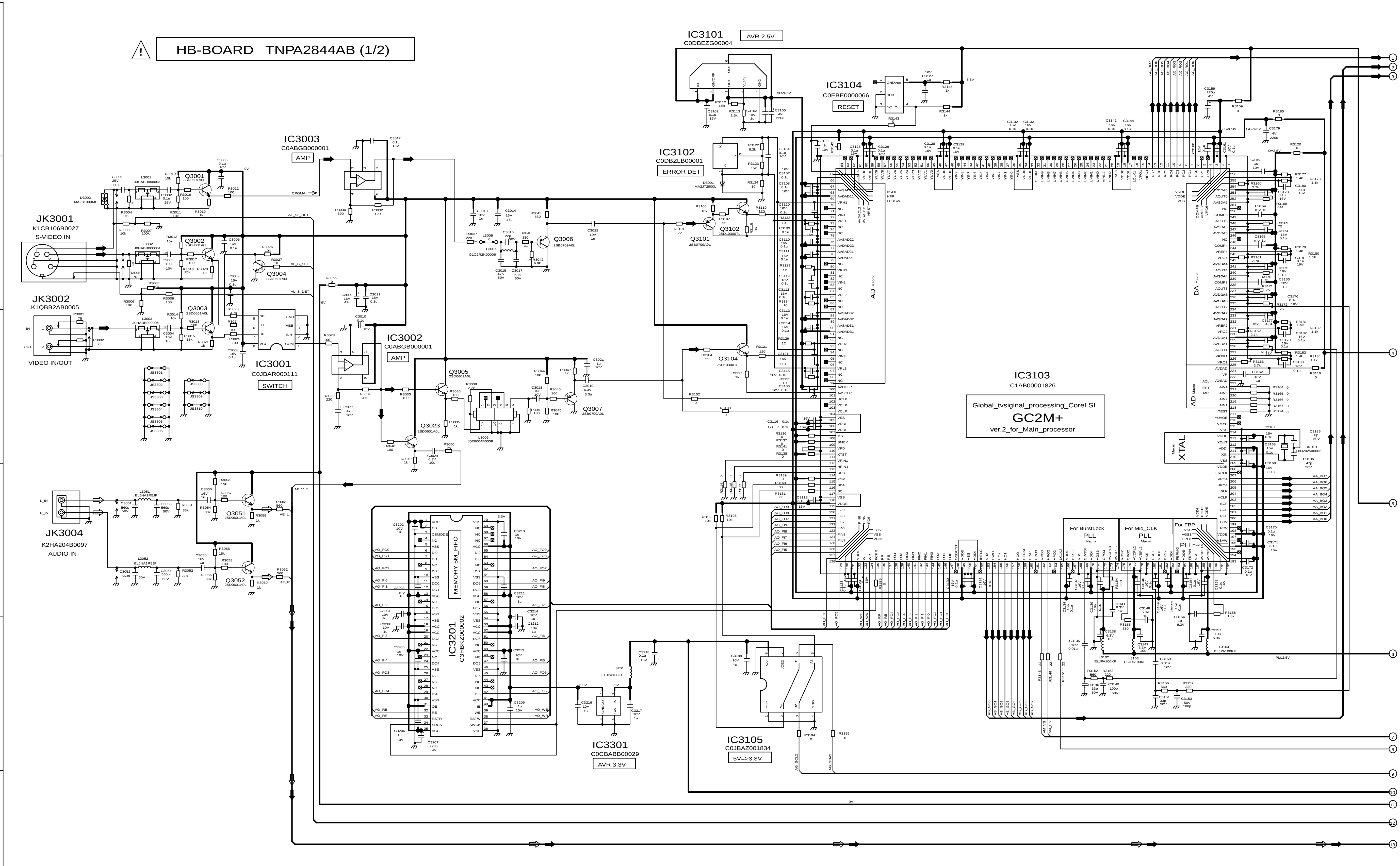
D-BOARD TZTNP01YSSE (12/12)


TO
DG-BOARD
(6/12)
IC9302
MN845121-A
PLASMA AI
SUB-FIELD PROCESSOR
RESET
DDR-SDRAM
IC9301
C3ABQJ000042
128M DDR SDRAM
Q9302
B1ABCF000138
D9300
MA3X152K0L
Q9303
B1ABCF000138
D9301
MA3X152K0L
D34
TO
C5-BOARD
(C54)
R-DOWN
D33
TO
C5-BOARD
(C55)
L-DOWN

TH-50PHD8BK/BS/EK/ES
D-Board (12 of 12) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
D-Board (12 of 12) Schematic Diagram

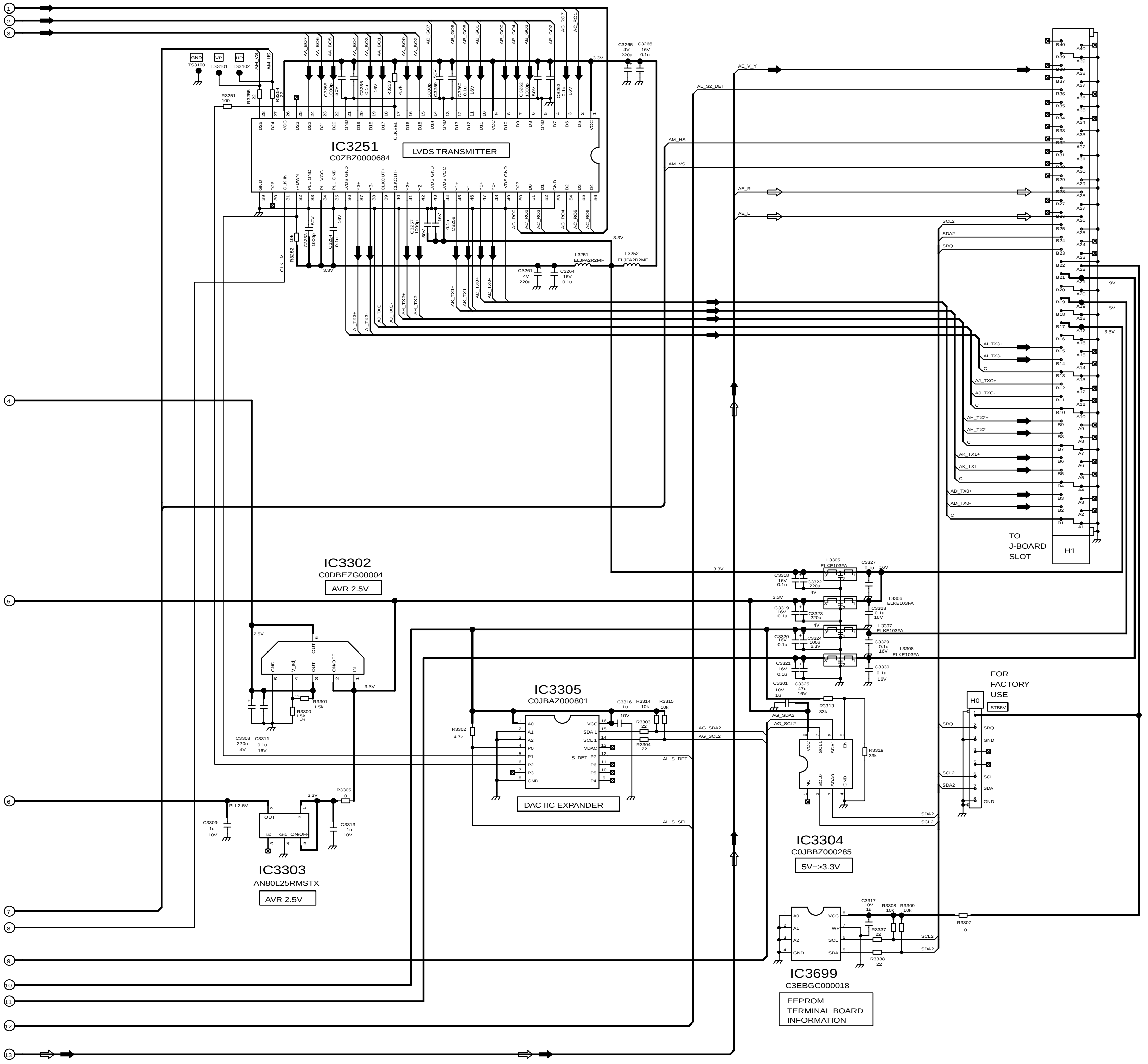
HB-BOARD TNPA2844AB (1/2)


IC3101
C0DBEZG00004
AVR 2.5V
IC3104
C0EBE0000066
RESET
IC3003
C0ABGB000001
AMP
IC3102
C0DBZLB00001
ERROR DET
JK3001
K1CB106B0027
S-VIDEO IN
JK3002
K1QBB2AB0005
VIDEO IN/OUT
IC3001
C0JBAR000111
SWITCH
IC3002
C0ABGB000001
AMP
IC3103
C1AB00001826
Global_tvsiginal_processing_CoreLSI
GC2M+
ver.2_for_Main_processor
AD Macro
DA Macro
XTAL
For BurstLock PLL Macro
For Mid_CLK PLL Macro
For FBP PLL Macro
JK3004
K2HA204B0097
AUDIO IN
IC3201
C3HBKZ000002
MEMORY 5M_FIFO
IC3301
C0CBABB00029
AVR 3.3V
IC3105
C0JBAZ001834
5V=>3.3V
Q3001
Q3002
Q3003
Q3004
Q3005
Q3006
Q3007
Q3023
Q3051
Q3052
Q3101
Q3102
Q3104
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

TH-50PHD8BK/BS/EK/ES
HB-Board (1 of 2) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
HB-Board (1 of 2) Schematic Diagram

HB-BOARD TNPA2844AB (2/2)


IC3251
C0ZBZ0000684
LVDS TRANSMITTER
TS3100
TS3101
TS3102
R3251 100
R3255
R3254 22
R3253 4.7k
R3252
3.3V
L3251 ELJPA2R2MF
L3252 ELJPA2R2MF
C3261 4V 220u
C3264 16V 0.1u
C3265 4V 220u
C3266 16V 0.1u
AE_V_Y
AL_S2_DET
AM_HS
AM_VS
AE_R
AE_L
SCL2
SDA2
SRQ
AI_TX3+
AI_TX3-
AJ_TXC+
AJ_TXC-
AH_TX2+
AH_TX2-
AK_TX1+
AK_TX1-
AD_TX0+
AD_TX0-
9V
5V
3.3V
TO
J-BOARD
SLOT
H1
IC3302
C0DBEZG00004
AVR 2.5V
2.5V
GND
V_adj
OUT
ON/OFF
IN
R3300 1.5k
R3301 1.5k
C3308 220u 4V
C3311 0.1u 16V
L3305 ELKE103FA
L3306 ELKE103FA
L3307 ELKE103FA
L3308 ELKE103FA
C3318
C3319
C3320
C3321
C3322
C3323
C3324
C3325
C3327
C3328
C3329
C3330
C3301
IC3305
C0JBAZ000801
DAC IIC EXPANDER
R3302 4.7k
R3303 22
R3304 22
R3314 10k
R3315 10k
C3316 1u 10V
AG_SDA2
AG_SCL2
AL_S_DET
AL_S_SEL
R3313 33k
R3319 33k
FOR
FACTORY
USE
H0
STB5V
SRQ
GND
SCL
SDA
IC3304
C0JBBZ000285
5V=>3.3V
PLL2.5V
R3305 0
C3309 1u 10V
C3313 1u 10V
IC3303
AN80L25RMSTX
AVR 2.5V
C3317 10V 1u
R3308 10k
R3309 10k
R3337 22
R3338 22
R3307 0
IC3699
C3EBGC000018
EEPROM
TERMINAL BOARD
INFORMATION
1
2
3
4
5
6
7
8
9
10
11
12
13

TH-50PHD8BK/BS/EK/ES
HB-Board (2 of 2) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
HB-Board (2 of 2) Schematic Diagram

10 11 12 13 14 15 16 17 18

A

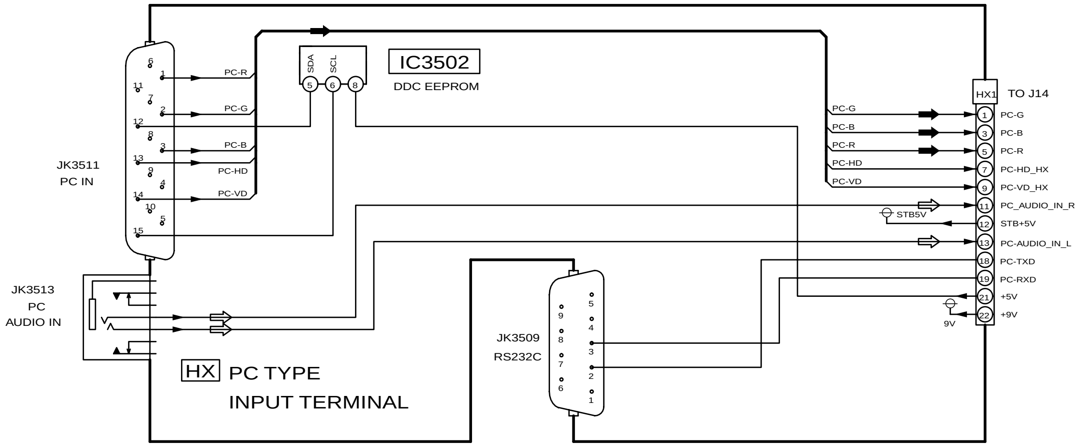
B

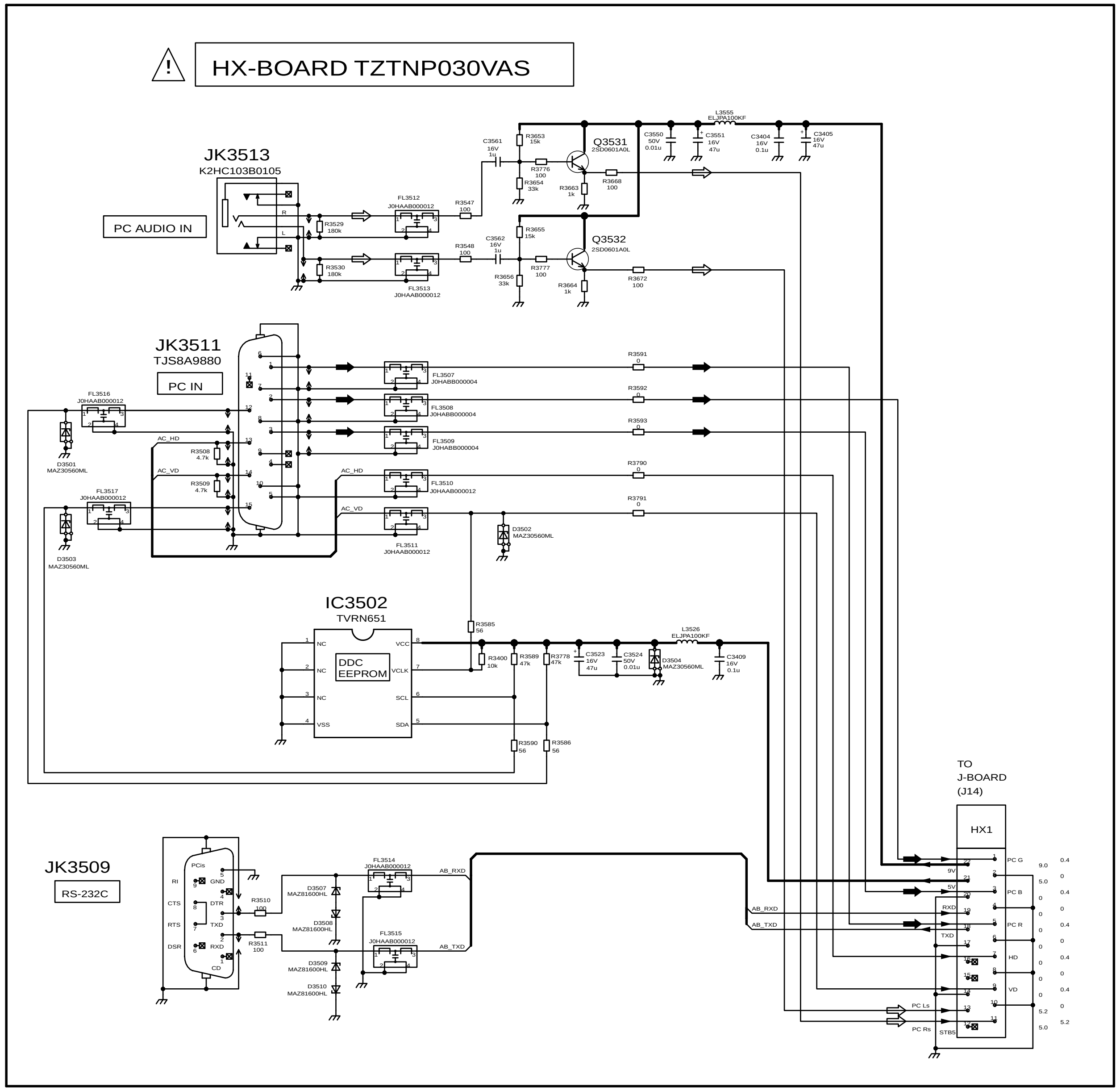
C

D

E

F


JK3511
PC IN
PC-R
PC-G
PC-B
PC-HD
PC-VD
SDA
SCL
IC3502
DDC EEPROM
HX1
TO J14
PC-G
PC-B
PC-R
PC-HD
PC-VD
PC-G
PC-B
PC-R
PC-HD_HX
PC-VD_HX
PC_AUDIO_IN_R
STB5V
STB+5V
PC-AUDIO_IN_L
PC-TXD
PC-RXD
+5V
+9V
9V
JK3513
PC
AUDIO IN
JK3509
RS232C
HX
PC TYPE
INPUT TERMINAL

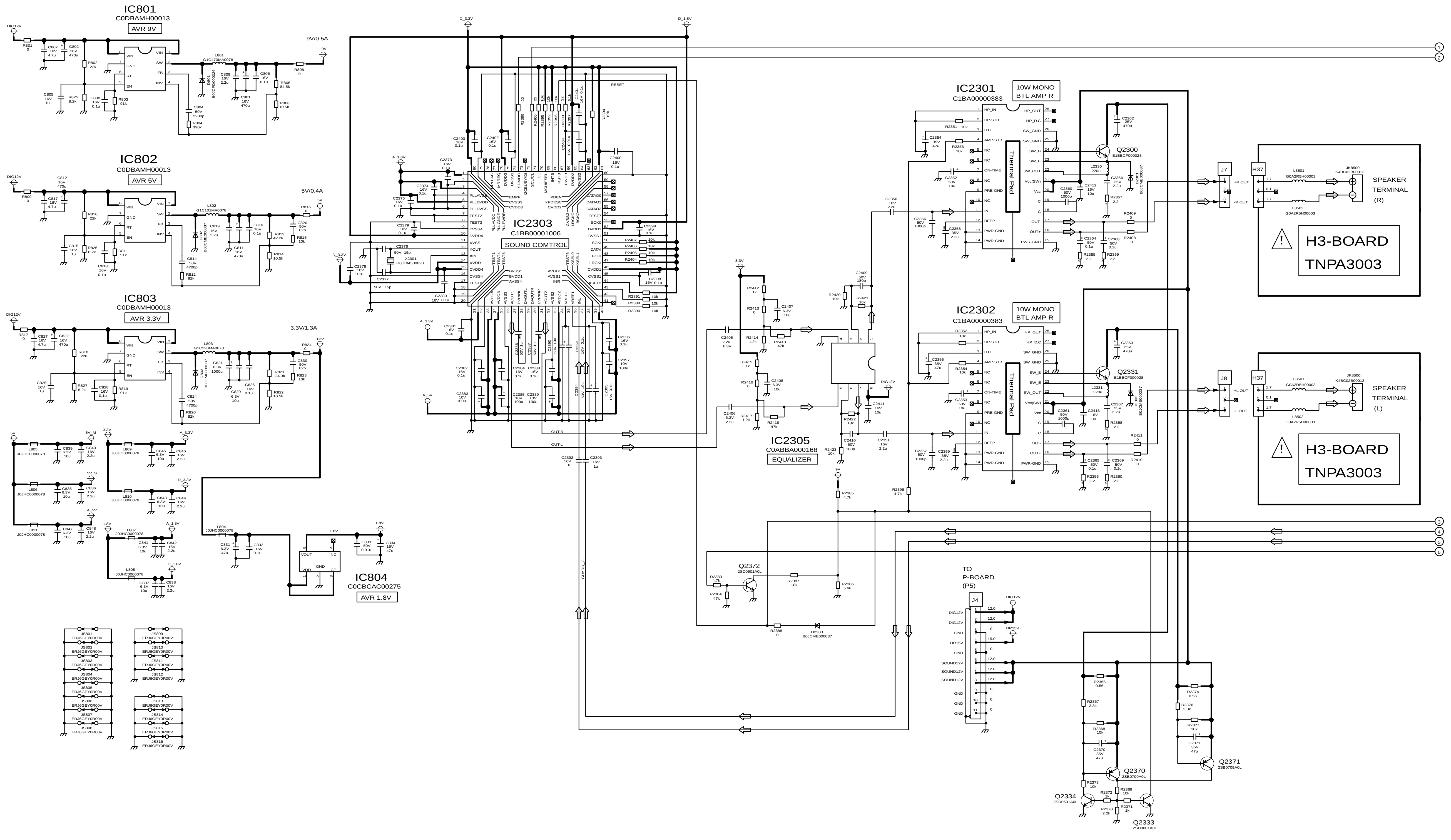

HX-BOARD TZTNP030VAS
JK3513
K2HC103B0105
PC AUDIO IN
FL3512
J0HAAB000012
FL3513
J0HAAB000012
R3529
180k
R3530
180k
R3547
100
R3548
100
C3561
16V
1u
C3562
16V
1u
R3653
15k
R3654
33k
R3655
15k
R3656
33k
R3776
100
R3777
100
R3663
1k
R3664
1k
Q3531
2SD0601A0L
Q3532
2SD0601A0L
R3668
100
R3672
100
C3550
50V
0.01u
C3551
16V
47u
L3555
ELJPA100KF
C3404
16V
0.1u
C3405
16V
47u
JK3511
TJS8A9880
PC IN
FL3516
J0HAAB000012
FL3517
J0HAAB000012
D3501
MAZ30560ML
D3503
MAZ30560ML
AC_HD
AC_VD
R3508
4.7k
R3509
4.7k
FL3507
J0HABB000004
FL3508
J0HABB000004
FL3509
J0HABB000004
FL3510
J0HAAB000012
FL3511
J0HAAB000012
R3591
0
R3592
0
R3593
0
R3790
0
R3791
0
D3502
MAZ30560ML
IC3502
TVRN651
NC
NC
NC
VSS
VCC
VCLK
SCL
SDA
DDC
EEPROM
R3585
56
R3400
10k
R3589
47k
R3778
47k
C3523
16V
47u
C3524
50V
0.01u
D3504
MAZ30560ML
L3526
ELJPA100KF
C3409
16V
0.1u
R3590
56
R3586
56
JK3509
RS-232C
PCis
GND
RI
DTR
CTS
TXD
RTS
RXD
DSR
CD
R3510
100
R3511
100
D3507
MAZ81600HL
D3508
MAZ81600HL
D3509
MAZ81600HL
D3510
MAZ81600HL
FL3514
J0HAAB000012
FL3515
J0HAAB000012
AB_RXD
AB_TXD
AB_RXD
AB_TXD
TO
J-BOARD
(J14)
HX1
PC G
PC B
PC R
HD
VD
9V
5V
RXD
TXD
PC Ls
PC Rs
STB5
9.0
5.0
0
0
0
0
0
5.2
5.0
0.4
0
0.4
0
0.4
0
0.4
0
0.4
0
5.2

TH-50PHD8BK/BS/EK/ES
HX-Board Block and Schematic Diagram

TH-50PHD8BK/BS/EK/ES
HX-Board Block and Schematic Diagram

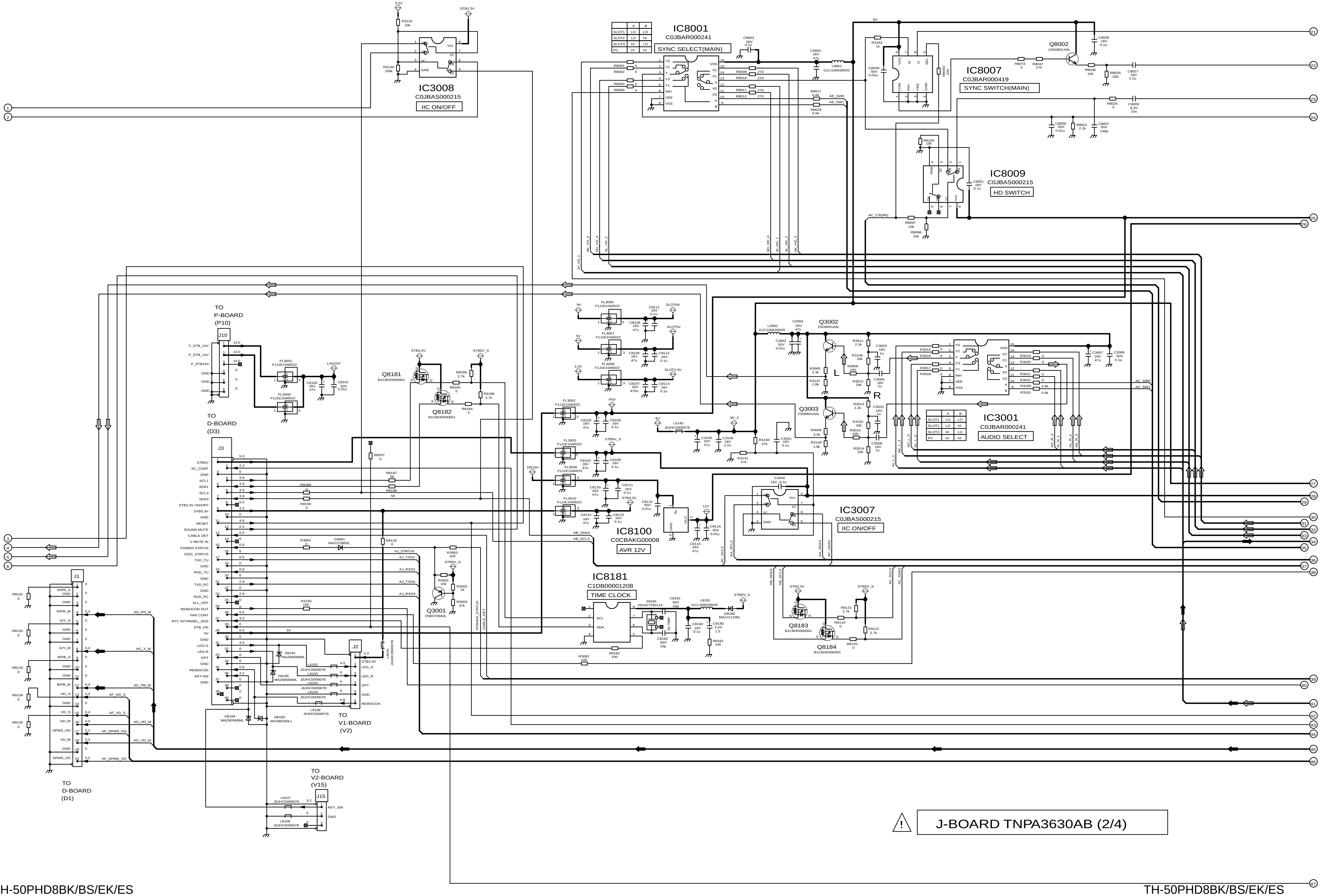
1 2 3 4 5 6 7 8 9

J-BOARD TNPA3630AB (1/4)


IC801
C0DBAMH00013
AVR 9V
9V/0.5A
IC802
C0DBAMH00013
AVR 5V
5V/0.4A
IC803
C0DBAMH00013
AVR 3.3V
3.3V/1.3A
IC804
C0CBCAC00275
AVR 1.8V
IC2303
C1BB00001006
SOUND COMTROL
IC2301
C1BA00000383
10W MONO
BTL AMP R
IC2302
C1BA00000383
10W MONO
BTL AMP R
Thermal Pad
IC2305
C0ABBA000168
EQUALIZER
Q2300
Q2331
Q2372
Q2370
Q2371
Q2334
Q2333
J7
J8
H37
+R OUT
-R OUT
+L OUT
-L OUT
SPEAKER
TERMINAL
(R)
(L)
H3-BOARD
TNPA3003
TO
P-BOARD
(P5)
J4
DIG12V
DR15V
GND
SOUND12V
D_3.3V
D_1.8V
A_1.8V
A_3.3V
A_5V
5V_M
5V_S
OUT-R
OUT-L
RESET
GUARD_CL
X2301
H0J184500020

TH-50PHD8BK/BS/EK/ES
J-Board (1 of 4) and H3-Board Schematic Diagram

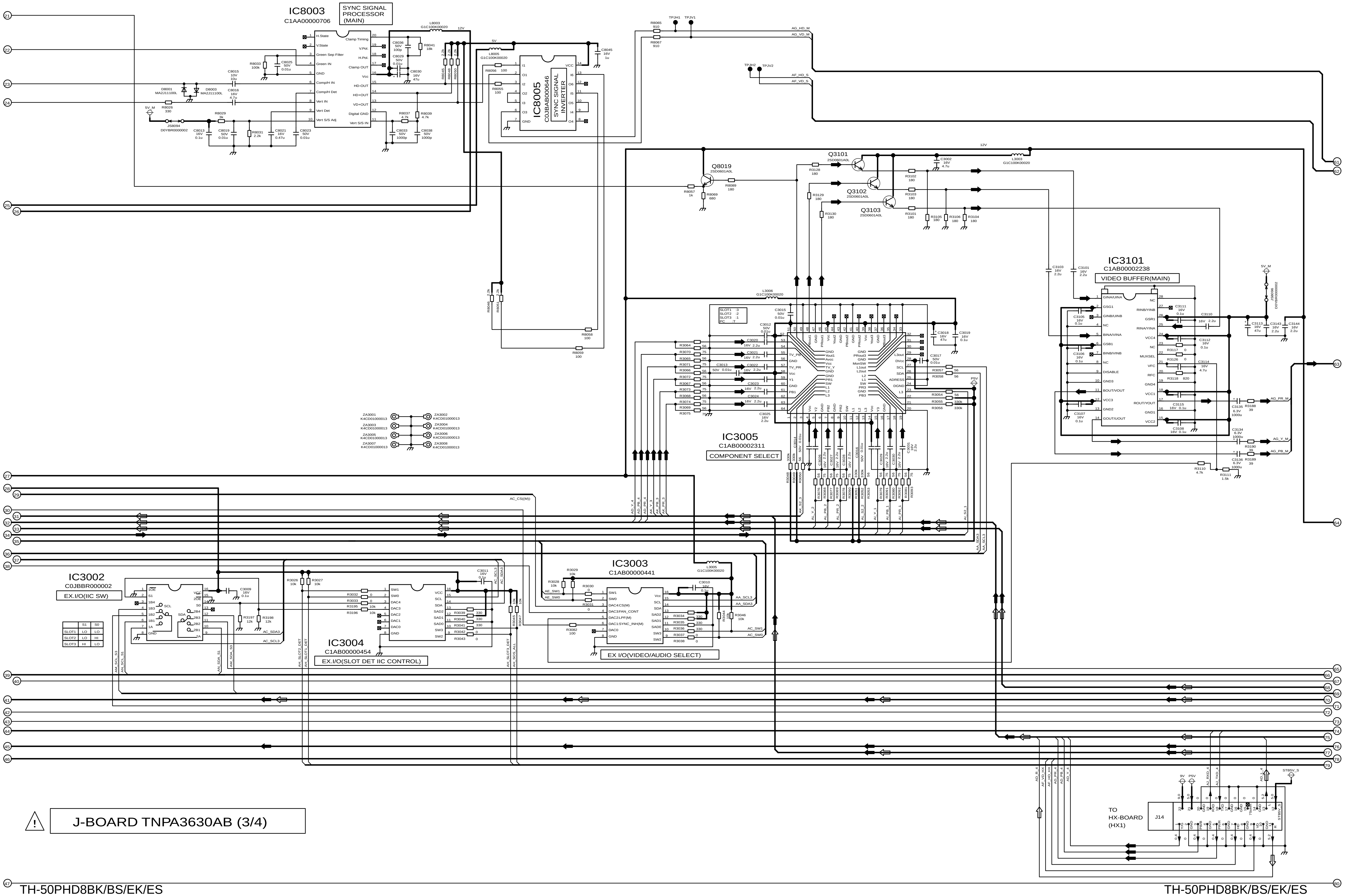
TH-50PHD8BK/BS/EK/ES
J-Board (1 of 4) and H3-Board Schematic Diagram

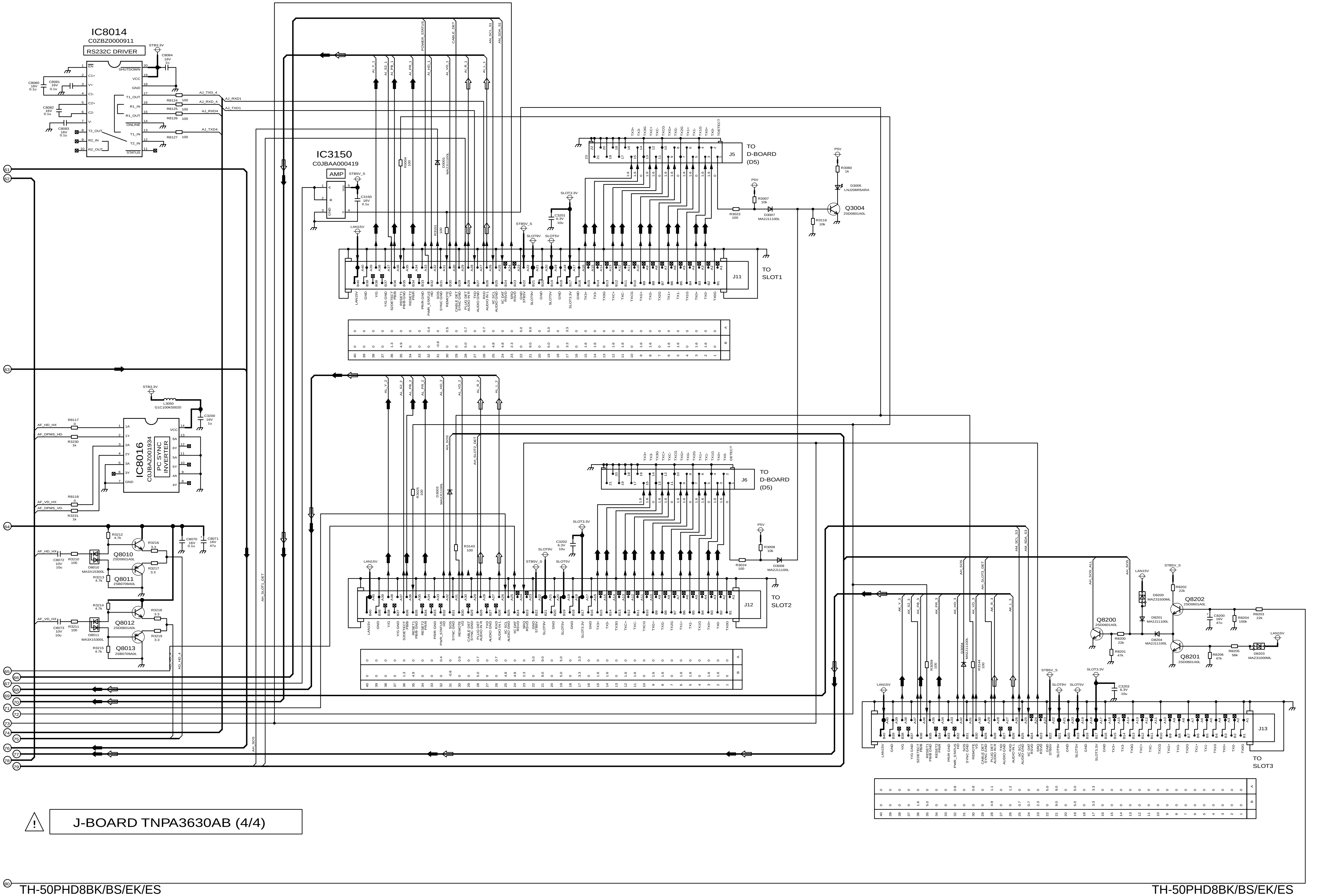

IC3008
C0JBAS000215
IIC ON/OFF
IC8001
C0JBAR000241
SYNC SELECT(MAIN)
IC8007
C0JBAR000419
SYNC SWITCH(MAIN)
Q8002
2SD0601A0L
IC8009
C0JBAS000215
HD SWITCH
Q3002
2SD0601A0L
Q3003
2SD0601A0L
IC3001
C0JBAR000241
AUDIO SELECT
IC3007
C0JBAS000215
IIC ON/OFF
IC8100
C0CBAKG00008
AVR 12V
IC8181
C1DB00001208
TIME CLOCK
Q8181
B1CBHD000001
Q8182
B1CBHD000001
Q3001
2SB0709A0L
Q8183
B1CBHD000001
Q8184
B1CBHD000001
TO
P-BOARD
(P10)
J10
TO
D-BOARD
(D3)
J3
J2
TO
V1-BOARD
(V2)
TO
V2-BOARD
(V15)
J15
J1
TO
D-BOARD
(D1)

⚠ J-BOARD TNPA3630AB (2/4)

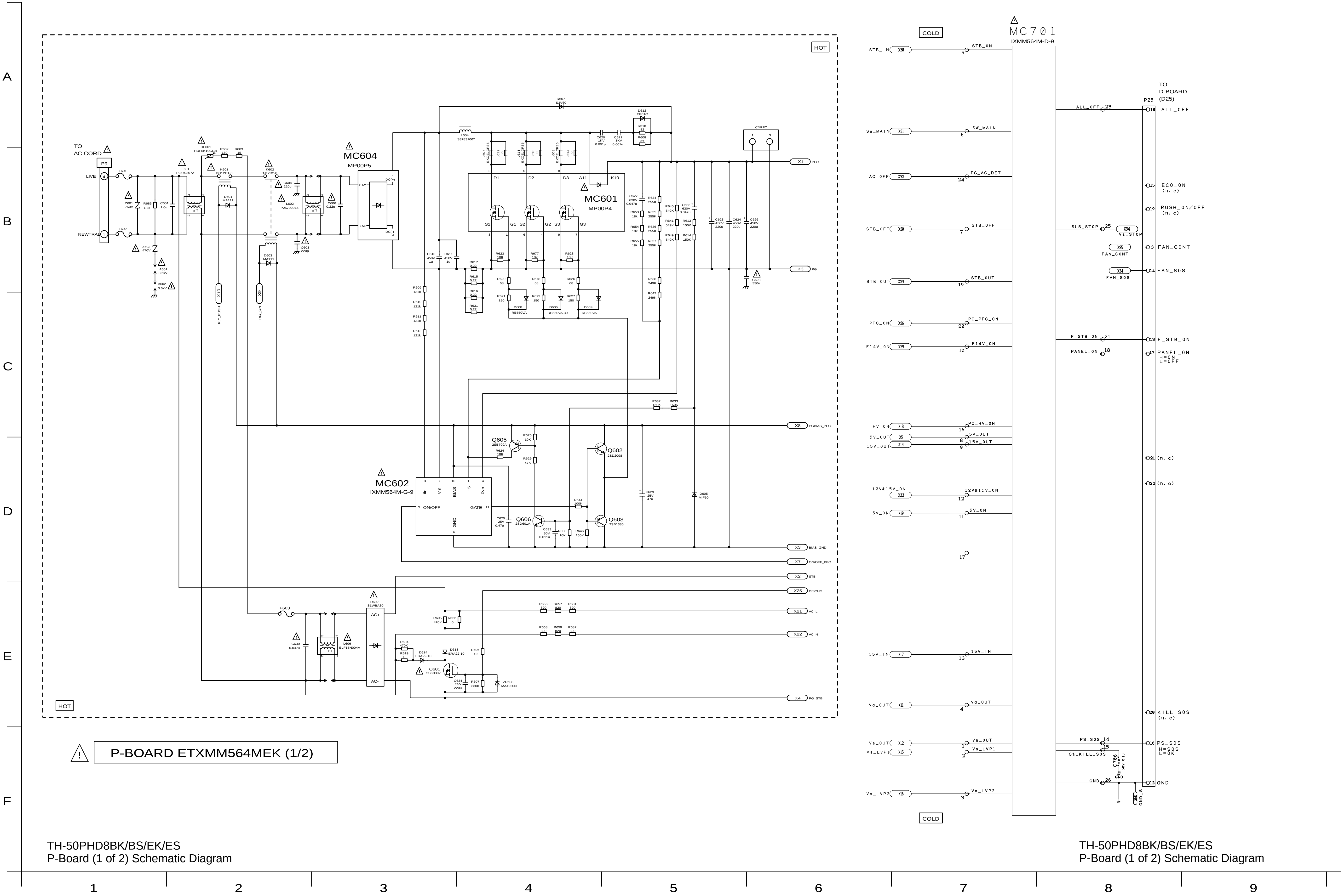
TH-50PHD8BK/BS/EK/ES
J-Board (2 of 4) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
J-Board (2 of 4) Schematic Diagram


IC8003
C1AA00000706
SYNC SIGNAL PROCESSOR (MAIN)
IC8005
C0JBAB000646
SYNC SIGNAL INVERTER
Q8019
2SD0601A0L
Q3101
2SD0601A0L
Q3102
2SD0601A0L
Q3103
2SD0601A0L
IC3101
C1AB00002238
VIDEO BUFFER(MAIN)
IC3005
C1AB00002311
COMPONENT SELECT
IC3002
C0JBBR000002
EX.I/O(IIC SW)
IC3004
C1AB00000454
EX.I/O(SLOT DET IIC CONTROL)
IC3003
C1AB00000441
EX I/O(VIDEO/AUDIO SELECT)
S1 S0
SLOT1 LO LO
SLOT2 LO HI
SLOT3 HI LO
TO HX-BOARD (HX1)
J14
J-BOARD TNPA3630AB (3/4)
AG_HD_M
AG_VD_M
AF_HD_S
AF_VD_S
AG_PR_M
AG_Y_M
AG_PB_M
12V
5V
5V_M
9V
P5V
STB5V_S


IC8014
C0ZBZ0000911
RS232C DRIVER
IC3150
C0JBAA000419
AMP
IC8016
C0JBAZ001934
PC SYNC INVERTER
Q8010
Q8011
Q8012
Q8013
J5
TO D-BOARD (D5)
J11
TO SLOT1
J6
TO D-BOARD (D5)
J12
TO SLOT2
J13
TO SLOT3
Q3004
Q8200
Q8201
Q8202

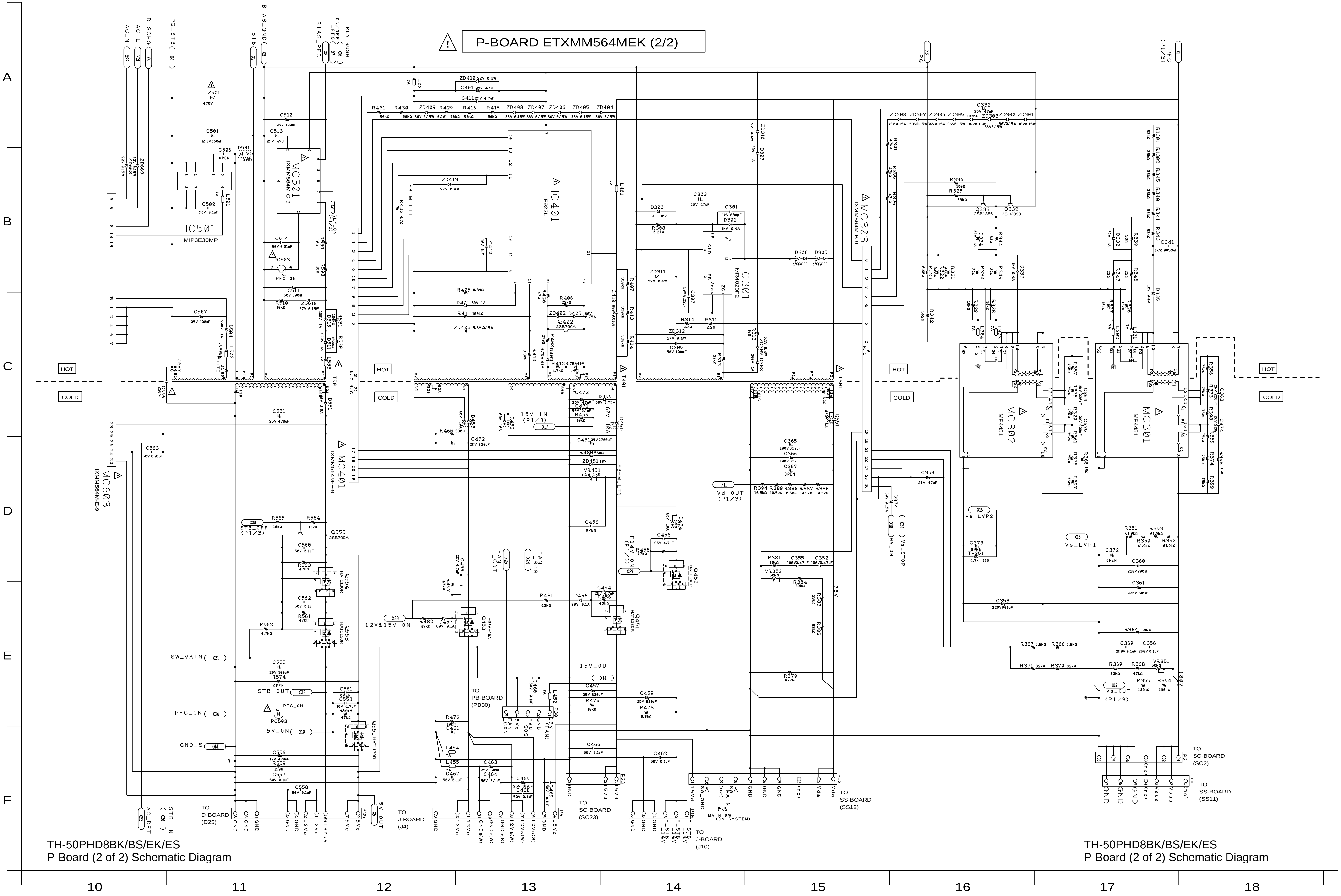
⚠ J-BOARD TNPA3630AB (4/4)


HOT
COLD
TO AC CORD
P9
LIVE
NEWTRAL
F601
F602
RF601 HUF5K100J14
R602 150
R603 15
K601 DG12D1-0
K602 DJ12D2-0
L601 P2570207Z
L602 P2570207Z
D601 MA111
D603 MA111
C601 1.0u
R683 1.8k
Z601 750V
Z602 470V
A601 3.6kV
A602 3.6kV
C604 220p
C603 220p
C606 0.22u
RLY_RUSH
RLY_ON
X10
X9
MC604
MP00P5
AC
DC(+)
DC(-)
D607 S3V60
D612 EP01C
R618 82
R608 82
L604 S3783106Z
L607 EXCELDR35
L611 EXCELDR35
L608 EXCELDR35
C620 1KV 0.001u
C621 1KV 0.001u
CNPFC
MC601
MP00P4
D1
D2
D3
A11
K10
S1
S2
S3
G1
G2
G3
R623 10K
R677 10k
R628 10K
R617 0.22
R615 0.22
R616 0.22
R631 0.22
R620 68
R678 68
R626 68
R621 150
R679 150
R627 150
D608 RB550VA
D606 RB550VA-30
D609 RB550VA
C610 450V 1u
C611 450V 1u
R609 121k
R610 121k
R611 121k
R612 121k
C627 630V 0.047u
R634 255K
R635 255K
R636 255K
R637 255K
R653 18k
R654 18k
R655 18k
R640 549K
R641 549K
R649 549K
C622 630V 0.047u
R613 150K
R614 150K
C623 450V 220u
C624 450V 220u
C626 450V 220u
C628 330u
R638 249K
R642 249K
X1 PFC
X3 PG
R632 150K
R633 150K
X8 PGBIAS_PFC
Q605 2SB709A
R625 10K
R624 18K
R629 47K
Q602 2SD2098
MC602
IXMM564M-G-9
Iin
Vin
BIAS
+5
Ovp
ON/OFF
GATE
GND
C625 25V 0.47u
Q606 2SD601A
C633 50V 0.011u
R630 10K
R644 100K
R646 150K
Q603 2SB1386
C629 25V 47u
D605 MIF60
X3 BIAS_GND
X7 ON/OFF_PFC
X2 STB
X25 DISCHG
X21 AC_L
X22 AC_N
X4 PG_STB
F603
C630 0.047u
L606 ELF15N004A
D602 S1WBA80
AC+
AC-
R605 470K
R622 0
R604 470K
R619 0
D614 ERA22-10
D613 ERA22-10
R606 1K
Q601 2SK3302
C634 25V 220u
R607 330k
ZD608 MA4220N
R656 820
R657 820
R681 820
R658 820
R659 820
R682 820
MC701
IXMM564M-D-9
STB_IN X30 5 STB_ON
SW_MAIN X31 6 SW_MAIN
AC_OFF X32 24 PC_AC_DET
STB_OFF X28 7 STB_OFF
STB_OUT X23 19 STB_OUT
PFC_ON X26 20 PC_PFC_ON
F14V_ON X29 10 F14V_ON
HV_ON X18 16 PC_HV_ON
5V_OUT X5 8 5V_OUT
15V_OUT X14 9 15V_OUT
12V&15V_ON X33 12 12V&15V_ON
5V_ON X19 11 5V_ON
17
15V_IN X17 13 15V_IN
Vd_OUT X11 4 Vd_OUT
Vs_OUT X12 1 Vs_OUT
Vs_LVP1 X15 2 Vs_LVP1
Vs_LVP2 X16 3 Vs_LVP2
TO D-BOARD (D25)
P25
ALL_OFF 23 18 ALL_OFF
15 ECO_ON (n. c)
19 RUSH_ON/OFF (n. c)
SUS_STOP 25 X34 Vs_STOP
X25 FAN_CONT 3 FAN_CONT
X24 FAN_SOS 14 FAN_SOS
F_STB_ON 21 13 F_STB_ON
PANEL_ON 18 17 PANEL_ON H=ON L=OFF
21 (n. c)
22 (n. c)
20 KILL_SOS (n. c)
PS_SOS 14 16 PS_SOS H=SOS L=OK
Ct_KILL_SOS 15
C706 50V 0.1uF
GND 26 12 GND
GND_S
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

P-BOARD ETXMM564MEK (1/2)

TH-50PHD8BK/BS/EK/ES
P-Board (1 of 2) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
P-Board (1 of 2) Schematic Diagram


P-BOARD ETXMM564MEK (2/2)
A
B
C
D
E
F
10
11
12
13
14
15
16
17
18
AC_N
AC_L
DISCHG
PG_STB
STB
BIAS_GND
BIAS_PFC
ON/OFF _PFC
RLY_RUSH
PG
PFC (P1/3)
IC501
MIP3E30MP
MC501
IXMM564M-C-9
IC401
F922L
MC401
IXMM564M-F-9
MC603
IXMM564M-E-9
IC301
MR4020F2
MC303
IXMM564M-B-9
MC302
MP4451
MC301
MP4451
T301
T401
T501
HOT
COLD
FB_MULT1
RLY_ON (P1/3)
PFC_ON
PC503
15V_IN (P1/3)
Vd_OUT (P1/3)
HV_ON
Vs_STOP
Vs_LVP2
Vs_LVP1
Vs_OUT (P1/3)
STB_OFF (P1/3)
F14V_ON (P1/3)
12V&15V_ON
FAN _CNT
FAN _SOS
SW_MAIN
STB_OUT
PFC_ON
5V_ON
GND_S
15V_OUT
5V_OUT
AC_DET
STB_IN
Q555 2SB709A
Q554 HAT1130R
Q553 HAT1130R
Q551 HAT1130R
Q453
Q452 HAT1130R
Q451 HAT1130R
Q402 2SB766A
Q333 2SB1386
Q332 2SD2098
TO D-BOARD (D25)
TO J-BOARD (J4)
TO PB-BOARD (PB30)
TO SC-BOARD (SC23)
TO J-BOARD (J10)
MAIN_SW (ON SYSTEM)
TO SS-BOARD (SS12)
TO SC-BOARD (SC2)
TO SS-BOARD (SS11)
P25
P5
P30
P23
P18
P12
P2
P11
75V
18V

TH-50PHD8BK/BS/EK/ES
P-Board (2 of 2) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
P-Board (2 of 2) Schematic Diagram

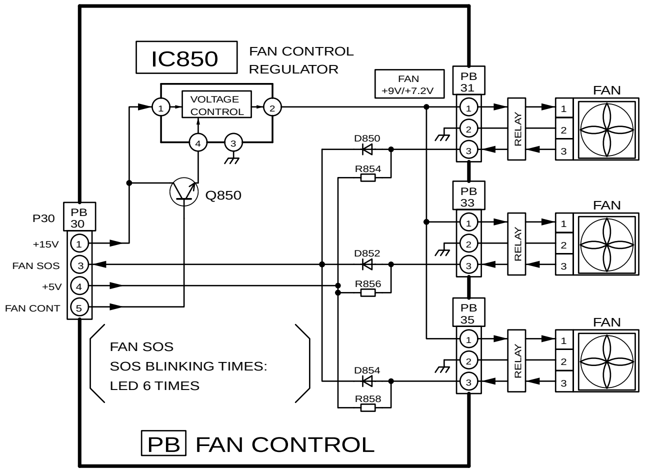
A

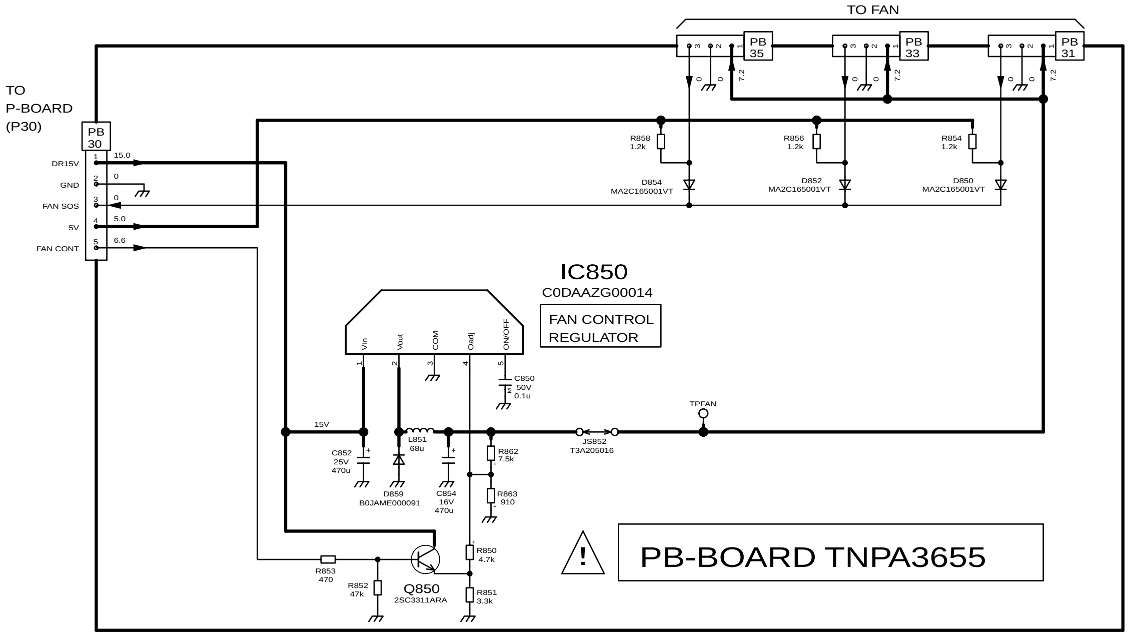
B

C

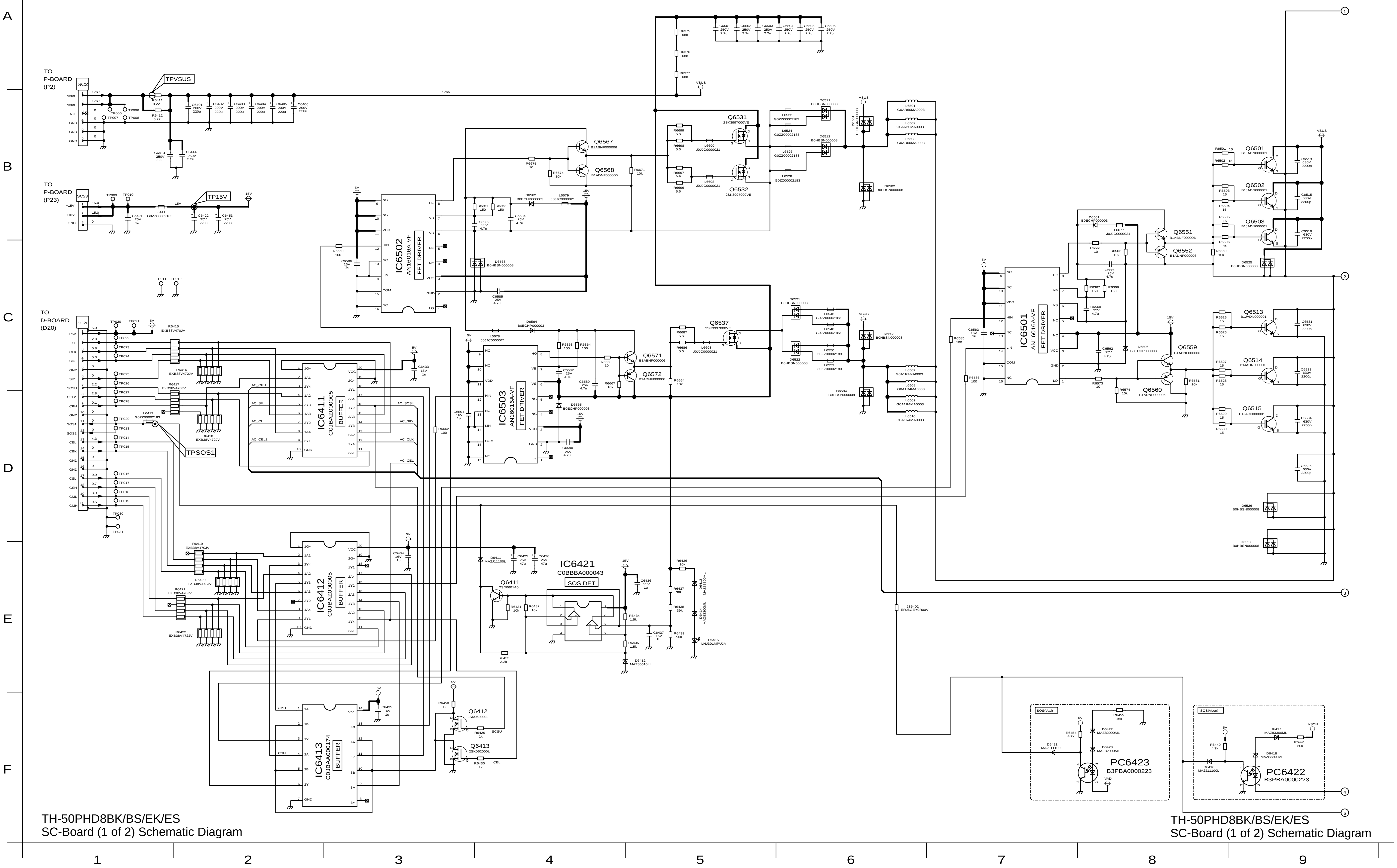
D

E


IC850
FAN CONTROL
REGULATOR
VOLTAGE
CONTROL
FAN
+9V/+7.2V
PB
31
PB
33
PB
35
FAN
FAN
FAN
RELAY
RELAY
RELAY
D850
R854
D852
R856
D854
R858
Q850
P30
PB
30
+15V
FAN SOS
+5V
FAN CONT
FAN SOS
SOS BLINKING TIMES:
LED 6 TIMES
PB FAN CONTROL


TO FAN
PB
35
PB
33
PB
31
7.2
R858
1.2k
R856
1.2k
R854
1.2k
D854
MA2C165001VT
D852
MA2C165001VT
D850
MA2C165001VT
TO
P-BOARD
(P30)
PB
30
DR15V
GND
FAN SOS
5V
FAN CONT
15.0
0
0
5.0
6.6
IC850
C0DAAZG00014
FAN CONTROL
REGULATOR
Vin
Vout
COM
Oadj
ON/OFF
C850
50V
0.1u
15V
C852
25V
470u
L851
68u
D859
B0JAME000091
C854
16V
470u
R862
7.5k
R863
910
JS852
T3A205016
TPFAN
R853
470
R852
47k
Q850
2SC3311ARA
R850
4.7k
R851
3.3k
PB-BOARD TNPA3655

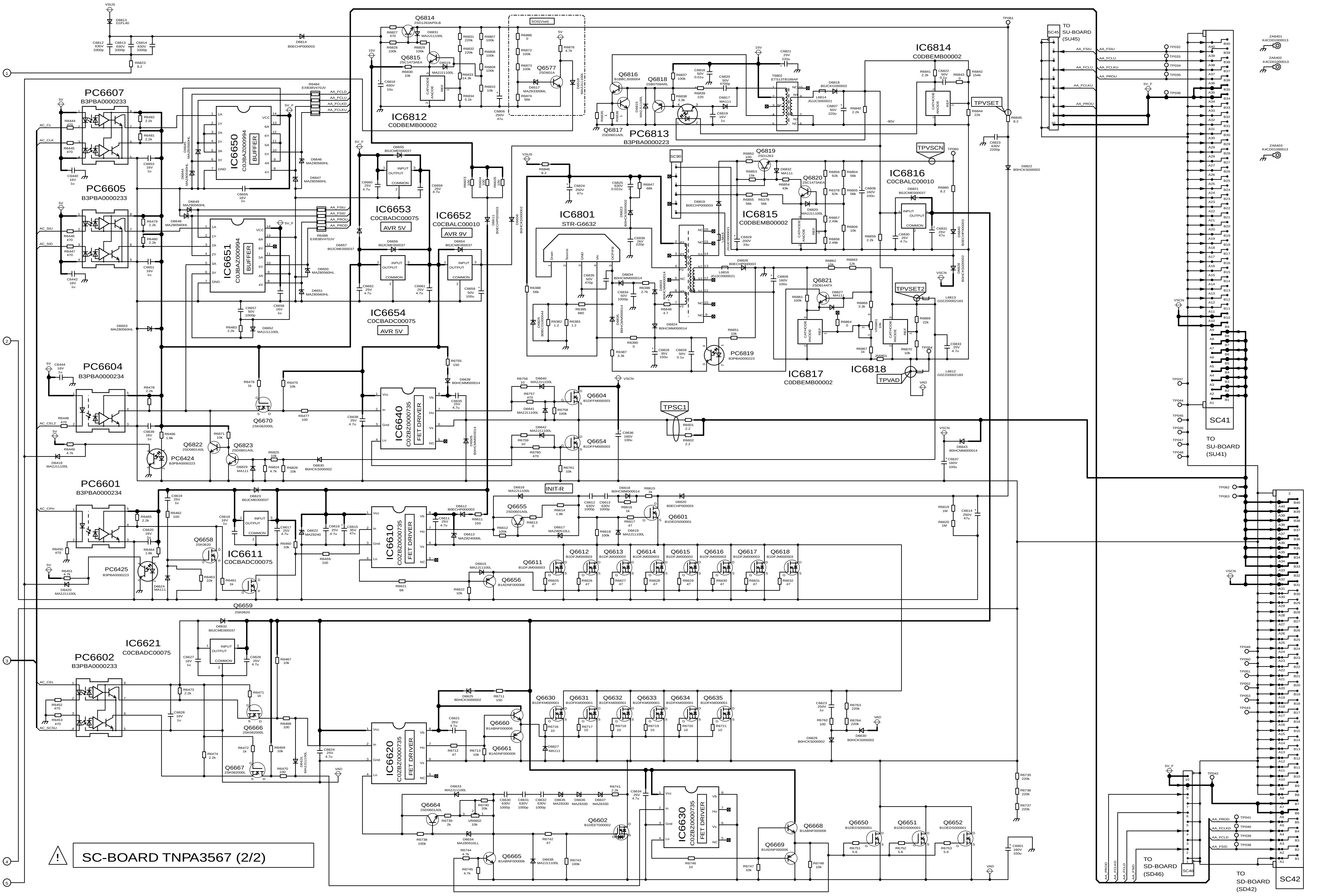
SC-BOARD TNPA3567 (1/2)



A
B
C
D
E
F
1
2
3
4
5
6
7
8
9
TO P-BOARD (P2)
SC2
Vsus
NC
GND
176.1
TPVSUS
R6411 0.22
R6412 0.22
TP005
TP006
TP007
TP008
C6401 200V 220u
C6402 200V 220u
C6403 200V 220u
C6404 200V 220u
C6405 200V 220u
C6406 200V 220u
C6413 250V 2.2u
C6414 250V 2.2u
176V
VSUS
TO P-BOARD (P23)
SC23
+15V
15.0
TP009
TP010
C6421 25V 1u
L6411 G0ZZ00002183
TP15V
15V
C6422 25V 220u
C6453 25V 220u
TP011
TP012
TO D-BOARD (D20)
SC20
P5V
CL
CLK
SIU
SID
SCSU
CEL2
CPH
SOS1
SOS2
CEL
CBK
CSL
CSH
CML
CMH
TP020
TP021
TP022
TP023
TP024
TP025
TP026
TP027
TP028
TP029
TP013
TP014
TP015
TP016
TP017
TP018
TP019
TP030
TP031
5V
R6415 EXB38V470JV
R6416 EXB38V472JV
R6417 EXB38V470JV
R6418 EXB38V472JV
L6412 G0ZZ00002183
TPSOS1
IC6411 C0JBAZ000005 BUFFER
AC_CPH
AC_SIU
AC_CL
AC_CEL2
AC_SCSU
AC_SID
AC_CLK
AC_CEL
C6433 16V 1u
R6419 EXB38V470JV
R6420 EXB38V472JV
R6421 EXB38V470JV
R6422 EXB38V472JV
IC6412 C0JBAZ000005 BUFFER
C6434 16V 1u
IC6413 C0JBAA000174 BUFFER
CMH
CSH
C6435 16V 1u
R6458 1k
Q6412 2SK062000L
R6429 1k
SCSU
Q6413 2SK062000L
R6430 1k
CEL
R6375 68k
R6376 68k
R6377 68k
C6501 250V 2.2u
C6502 250V 2.2u
C6503 250V 2.2u
C6504 250V 2.2u
C6505 250V 2.2u
C6506 250V 2.2u
IC6502 AN16016A-VF FET DRIVER
R6669 100
C6586 16V 1u
R6361 150
R6362 150
C6582 25V 4.7u
C6584 25V 4.7u
C6585 25V 4.7u
D6562 B0ECHP000003
L6679 J0JJC0000021
D6563 B0HBSN000008
Q6567 B1ABNF000006
Q6568 B1ADNF000006
R6675 10
R6674 10k
R6671 10k
Q6531 2SK3997000VE
Q6532 2SK3997000VE
R6699 5.6
R6698 5.6
R6697 5.6
R6696 5.6
L6699 J0JJC0000021
L6698 J0JJC0000021
L6522 G0ZZ00002183
L6524 G0ZZ00002183
L6526 G0ZZ00002183
L6528 G0ZZ00002183
D6511 B0HBSN000008
D6512 B0HBSN000008
D6501 B0HBSN000008
D6502 B0HBSN000008
L6501 G0AR60MA0003
L6502 G0AR60MA0003
L6503 G0AR60MA0003
IC6503 AN16016A-VF FET DRIVER
L6678 J0JJC0000021
D6564 B0ECHP000003
R6363 150
R6364 150
C6587 25V 4.7u
C6589 25V 4.7u
R6668 10
R6667 10k
D6565 B0ECHP000003
C6590 25V 4.7u
C6591 16V 1u
R6662 100
Q6571 B1ABNF000006
Q6572 B1ADNF000006
R6664 10k
Q6537 2SK3997000VE
R6687 5.6
R6686 5.6
L6693 J0JJC0000021
D6521 B0HBSN000008
D6522 B0HBSN000008
L6546 G0ZZ00002183
L6548 G0ZZ00002183
L6550 G0ZZ00002183
L6552 G0ZZ00002183
D6503 B0HBSN000008
D6504 B0HBSN000008
L6507 G0A1R4MA0003
L6508 G0A1R4MA0003
L6509 G0A1R4MA0003
L6510 G0A1R4MA0003
IC6421 C0BBBA000043 SOS DET
D6411 MA2J11100L
C6425 25V 47u
C6426 25V 47u
Q6411 2SD0601A0L
R6431 10k
R6432 10k
R6433 2.2k
C6436 25V 1u
R6434 1.5k
R6435 1.5k
D6412 MAZ80510LL
C6437 16V 1u
R6436 10k
R6437 39k
R6438 39k
R6439 7.5k
D6413 MAZ83300ML
D6414 MAZ83300ML
D6415 LNJ301MPUJA
JS6402 ERJ6GEY0R00V
IC6501 AN16016A-VF FET DRIVER
R6585 100
R6586 100
C6563 16V 1u
D6561 B0ECHP000003
L6677 J0JJC0000021
R6561 10
R6562 10k
C6559 25V 4.7u
R6367 150
R6368 150
C6560 25V 4.7u
C6562 25V 4.7u
D6506 B0ECHP000003
Q6551 B1ABNF000006
Q6552 B1ADNF000006
R6569 10k
Q6559 B1ABNF000006
Q6560 B1ADNF000006
R6573 10
R6574 10k
R6581 10k
Q6501 B1JADN000001
Q6502 B1JADN000001
Q6503 B1JADN000001
R6501 15
R6502 15
R6503 15
R6504 15
R6505 15
R6506 15
C6513 630V 2200p
C6515 630V 2200p
C6516 630V 2200p
D6525 B0HBSN000008
Q6513 B1JADN000001
Q6514 B1JADN000001
Q6515 B1JADN000001
R6525 15
R6526 15
R6527 15
R6528 15
R6529 15
R6530 15
C6531 630V 2200p
C6533 630V 2200p
C6534 630V 2200p
C6536 630V 2200p
D6526 B0HBSN000008
D6527 B0HBSN000008
SOS(Vad)
R6455 16k
D6422 MAZ82000ML
D6423 MAZ82000ML
R6454 4.7k
D6421 MA2J11100L
PC6423 B3PBA0000223
VAD
SOS(Vscn)
D6417 MAZ83300ML
R6441 20k
VSCN
D6418 MAZ83300ML
R6440 4.7k
D6416 MA2J11100L
PC6422 B3PBA0000223
①
②
③
④
⑤

TH-50PHD8BK/BS/EK/ES
SC-Board (1 of 2) Schematic Diagram

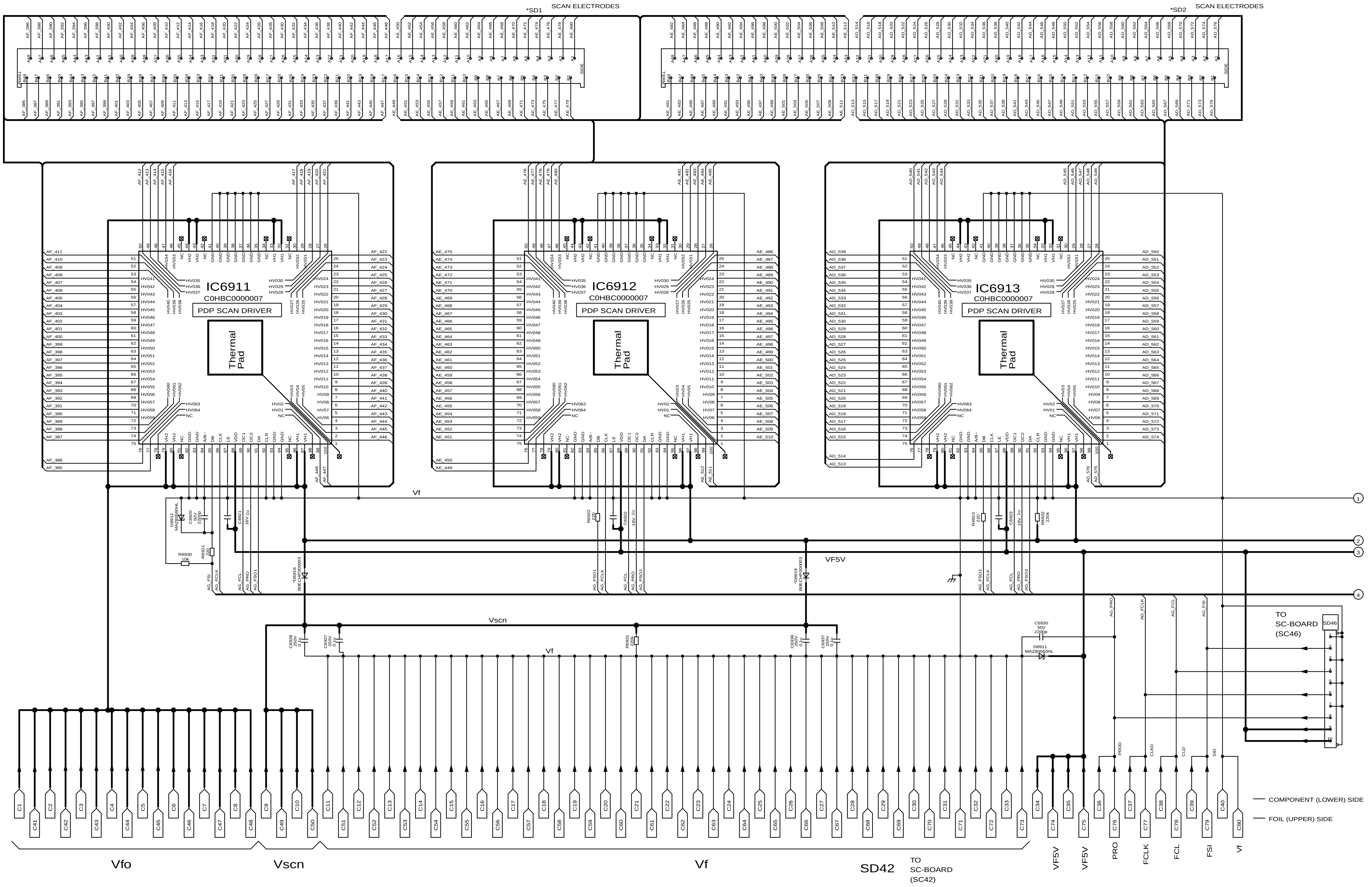
TH-50PHD8BK/BS/EK/ES
SC-Board (1 of 2) Schematic Diagram


SC-BOARD TNPA3567 (2/2)
PC6607
B3PBA0000233
PC6605
B3PBA0000233
PC6604
B3PBA0000234
PC6601
B3PBA0000234
PC6602
B3PBA0000233
PC6424
PC6425
IC6650
C0JBAZ000994
BUFFER
IC6651
C0JBAZ000994
BUFFER
IC6653
C0CBADC00075
AVR 5V
IC6652
C0CBALC00010
AVR 9V
IC6654
C0CBADC00075
AVR 5V
IC6640
C0ZBZ0000735
FET DRIVER
IC6611
C0CBADC00075
IC6610
C0ZBZ0000735
FET DRIVER
IC6621
C0CBADC00075
IC6620
C0ZBZ0000735
FET DRIVER
IC6630
C0ZBZ0000735
FET DRIVER
IC6812
C0DBEMB00002
IC6801
STR-G6632
PC6813
B3PBA0000223
IC6814
C0DBEMB00002
IC6815
C0DBEMB00002
IC6816
C0CBALC00010
IC6817
C0DBEMB00002
IC6818
PC6819
B3PBA0000223
TPVSET
TPVSCN
TPVSET2
TPVAD
TPSC1
INIT-R
SOS(Vset)
T6802
ETS13TB199AP
Q6604
Q6654
Q6670
Q6822
Q6823
Q6655
Q6601
Q6658
Q6659
Q6611
Q6612
Q6613
Q6614
Q6615
Q6616
Q6617
Q6618
Q6656
Q6666
Q6667
Q6630
Q6631
Q6632
Q6633
Q6634
Q6635
Q6660
Q6661
Q6664
Q6665
Q6602
Q6668
Q6669
Q6650
Q6651
Q6652
Q6814
Q6815
Q6577
Q6816
Q6817
Q6818
Q6819
Q6820
Q6821
TO
SU-BOARD
(SU45)
SC45
TO
SU-BOARD
(SU41)
SC41
TO
SD-BOARD
(SD46)
SC46
TO
SD-BOARD
(SD42)
SC42
SC90
VSUS
VSCN
VAD
5V
5V_F
15V
AC_CL
AC_CLK
AC_SIU
AC_SID
AC_CEL2
AC_CPH
AC_CEL
AC_SCSU
AA_FCLD
AA_FCLU
AA_FCLKD
AA_FCLKU
AA_FSIU
AA_FSID
AA_PROU
AA_PROD
ZA6401
ZA6402
ZA6403
1
2
3
4
5
10
11
12
13
14
15
16
17
18

TH-50PHD8BK/BS/EK/ES SC-Board (2 of 2) Schematic Diagram

TH-50PHD8BK/BS/EK/ES SC-Board (2 of 2) Schematic Diagram

SD-BOARD TNPA3220AB (1/2)

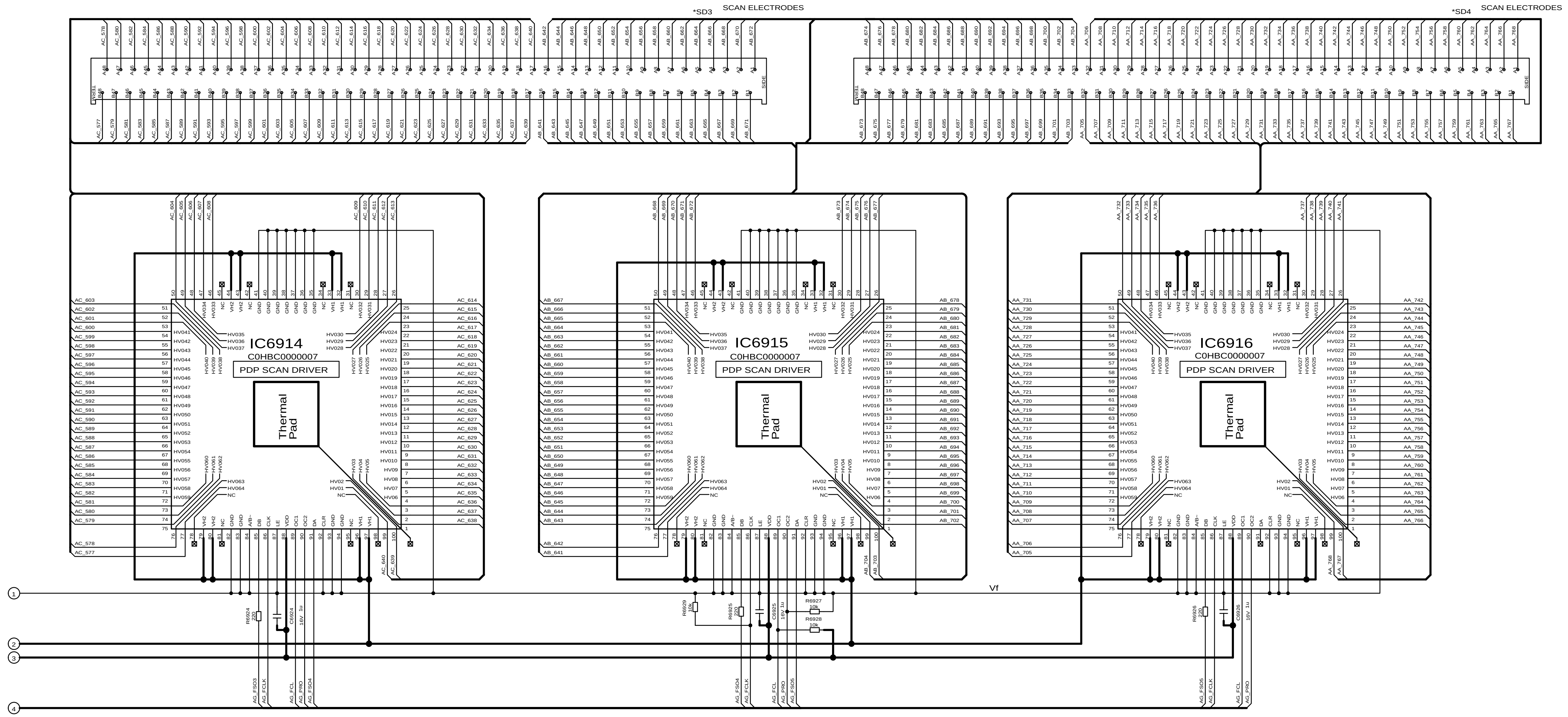


To 1st 96pins of SCAN ELECTRODES
*SD1
To 2nd 96pins of SCAN ELECTRODES
*SD2
IC6911
IC6912
IC6913
C0HBC0000007
PDP SCAN DRIVER
Thermal Pad
Vf
VF5V
Vscn
D6912 MAZ80560HL
C6920 50V 2200p
C6921 16V 1u
R6921 220
R6930 10k
R6922 220
C6922 16V 1u
R6923 220
C6923 16V 1u
R6932 220k
D6918 B0ECHP000003
D6919 B0ECHP000003
C6928 250V 0.1u
C6927 250V 0.1u
R6931 220k
C6938 250V 0.1u
C6937 250V 0.1u
C6930 50V 2200p
D6911 MAZ80560HL
TO SC-BOARD (SC46)
SD46
COMPONENT (LOWER) SIDE
FOIL (UPPER) SIDE
Vfo
Vscn
Vf
SD42
TO SC-BOARD (SC42)
VF5V
VF5V
PRO
FCLK
FCL
FSI
Vf
1
2
3
4
A
B
C
D
E
5
6
7
8

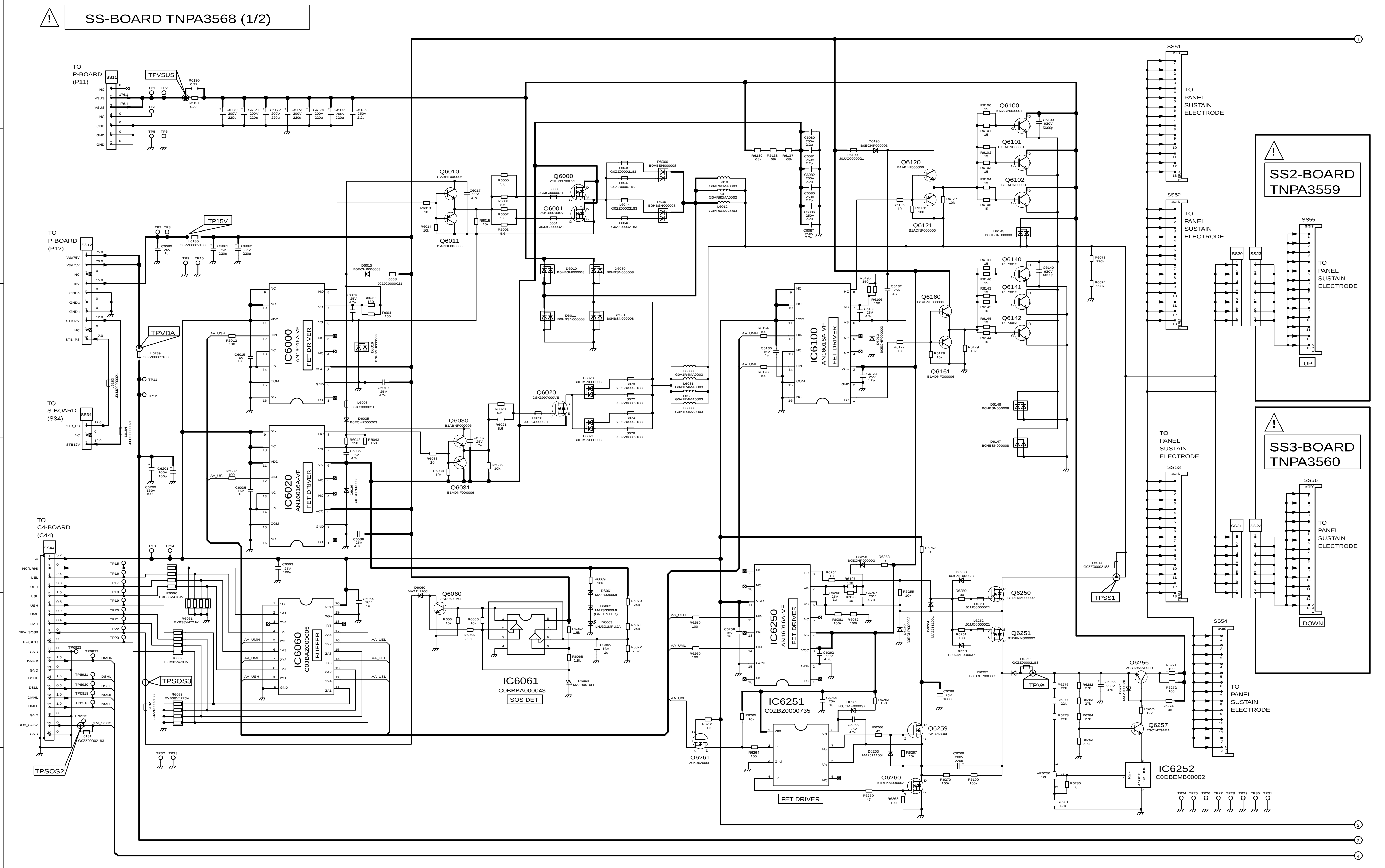
TH-50PHD8BK/BS/EK/ES
SD-Board (1 of 2) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
SD-Board (1 of 2) Schematic Diagram

SD-BOARD TNPA3220AB (2/2)



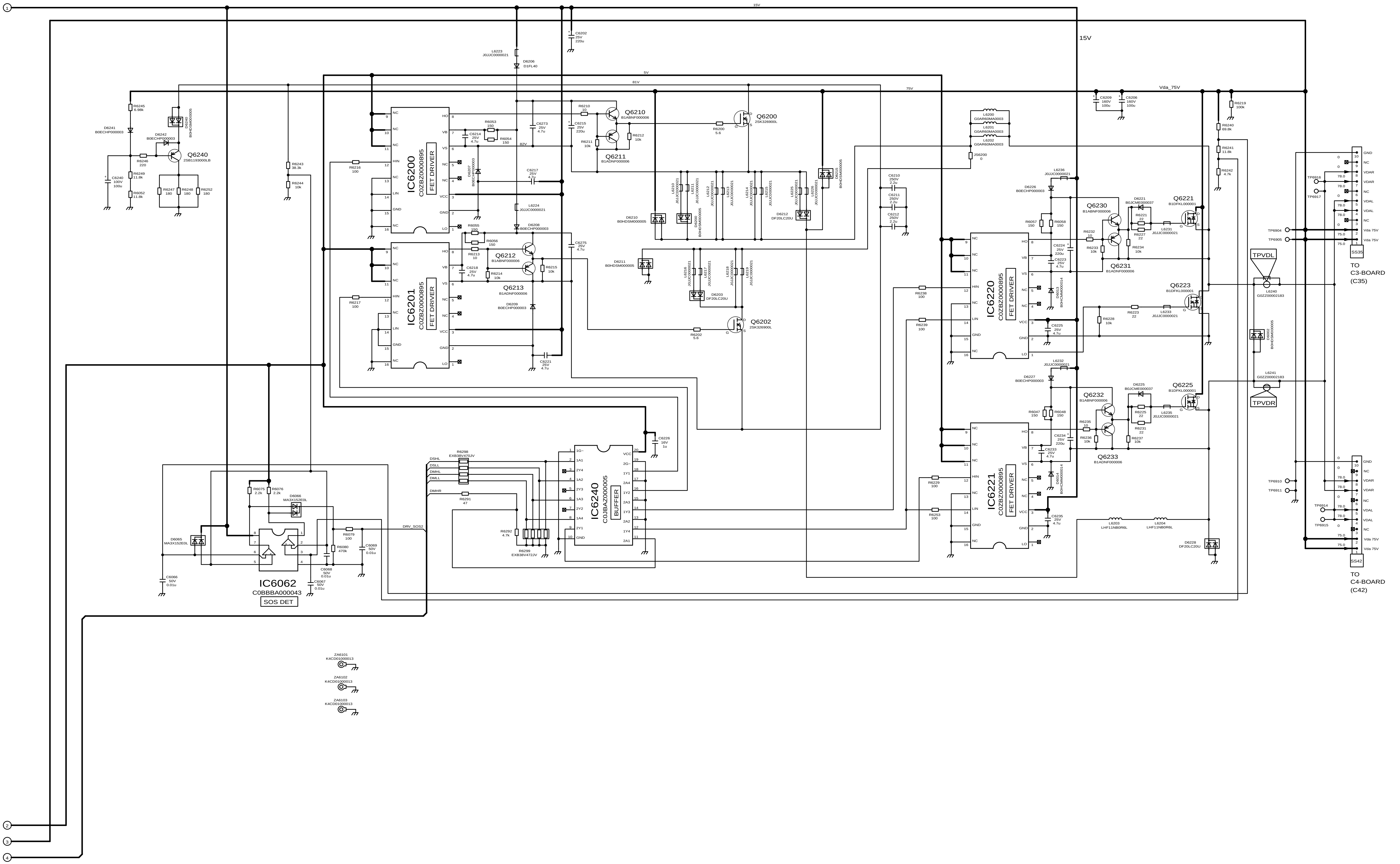
To 3rd 96pins of
SCAN ELECTRODES
*SD3
To 4th 96pins of
SCAN ELECTRODES
*SD4
SIDE
IC6914
C0HBC0000007
PDP SCAN DRIVER
Thermal Pad
IC6915
C0HBC0000007
PDP SCAN DRIVER
Thermal Pad
IC6916
C0HBC0000007
PDP SCAN DRIVER
Thermal Pad
R6924 220
C6924 16V 1u
R6929 10k
R6925 220
C6925 16V 1u
R6927 10k
R6928 10k
R6926 220
C6926 16V 1u
Vf
1
2
3
4
AG_FSO3
AG_FCLK
AG_FCL
AG_PRO
AG_FSO4
AG_FSO5


SS-BOARD TNPA3568 (1/2)
TO P-BOARD (P11)
SS11
TPVSUS
R6190 0.22
R6191 0.22
TP1
TP2
TP3
TP5
TP6
C6170 200V 220u
C6171 200V 220u
C6172 200V 220u
C6173 200V 220u
C6174 200V 220u
C6175 200V 220u
C6185 250V 2.2u
TO P-BOARD (P12)
SS12
TP15V
TP7
TP8
L6180 G0ZZ00002183
C6060 25V 1u
C6061 25V 220u
C6062 25V 220u
TP9
TP10
TPVDA
L6239 G0ZZ00002183
TP11
TP12
TO S-BOARD (S34)
SS34
C6201 160V 100u
C6200 160V 100u
Q6010 B1ABNF000006
Q6011 B1ADNF000006
R6013 10
R6014 10k
C6017 25V 4.7u
R6015 10k
R6000 5.6
R6001 5.6
R6002 5.6
R6003 5.6
Q6000 2SK3997000VE
Q6001 2SK3997000VE
L6000 J0JJC0000021
L6001 J0JJC0000021
L6040 G0ZZ00002183
L6042 G0ZZ00002183
L6044 G0ZZ00002183
L6046 G0ZZ00002183
D6000 B0HBSN000008
D6001 B0HBSN000008
L6010 G0AR60MA0003
L6011 G0AR60MA0003
L6012 G0AR60MA0003
D6015 B0ECHP000003
L6068 J0JJC0000021
IC6000 AN16016A-VF FET DRIVER
AA_USH
R6012 100
C6015 16V 1u
C6016 25V 4.7u
R6040 150
R6041 150
C6019 25V 4.7u
L6098 J0JJC0000021
D6035 B0ECHP000003
D6010 B0HBSN000008
D6030 B0HBSN000008
D6011 B0HBSN000008
D6031 B0HBSN000008
Q6020 2SK3997000VE
R6020 5.6
R6021 5.6
L6020 J0JJC0000021
D6020 B0HBSN000008
D6021 B0HBSN000008
L6070 G0ZZ00002183
L6072 G0ZZ00002183
L6074 G0ZZ00002183
L6076 G0ZZ00002183
L6030 G0A1R4MA0003
L6031 G0A1R4MA0003
L6032 G0A1R4MA0003
L6033 G0A1R4MA0003
IC6020 AN16016A-VF FET DRIVER
AA_USL
R6032 100
C6035 16V 1u
R6042 150
R6043 150
C6036 25V 4.7u
C6039 25V 4.7u
Q6030 B1ABNF000006
Q6031 B1ADNF000006
R6033 10
R6034 10k
C6037 25V 4.7u
R6035 10k
TO C4-BOARD (C44)
SS44
TP13
TP14
TP15
TP16
TP17
TP18
TP19
TP20
TP21
TP22
TP23
R6060 EXB38V470JV
R6061 EXB38V472JV
R6062 EXB38V470JV
R6063 EXB38V472JV
TP6923
TP6922
TP6921
TP6920
TP6919
TP6918
TP6913
DMHR
DSHL
DSLL
DMHL
DMLL
DRV_SOS2
TPSOS3
TPSOS2
L6181 G0ZZ00002183
L6182 G0ZZ00002183
TP32
TP33
C6063 25V 100u
IC6060 C0JBAZ000005 BUFFER
C6064 16V 1u
AA_UMH
AA_UML
AA_USH
AA_UEL
AA_UEH
AA_USL
D6060 MA2J11100L
Q6060 2SD0601A0L
R6064 10k
R6065 10k
R6066 2.2k
IC6061 C0BBBA000043 SOS DET
R6067 1.5k
R6068 1.5k
R6069 10k
D6061 MAZ83300ML
D6062 MAZ83300ML (GREEN LED)
D6063 LNJ301MPUJA
C6065 16V 1u
D6064 MAZ80510LL
R6070 39k
R6071 39k
R6072 7.5k
R6139 68k
R6138 68k
R6137 68k
C6080 250V 2.2u
C6081 250V 2.2u
C6082 250V 2.2u
C6085 250V 2.2u
C6086 250V 2.2u
C6087 250V 2.2u
L6190 J0JJC0000021
D6190 B0ECHP000003
Q6120 B1ABNF000006
Q6121 B1ADNF000006
R6125 10
R6126 10k
R6127 10k
Q6100 B1JADN000001
Q6101 B1JADN000001
Q6102 B1JADN000001
R6100 15
R6101 15
R6102 15
R6103 15
R6104 15
R6105 15
C6100 630V 5600p
D6145 B0HBSN000008
IC6100 AN16016A-VF FET DRIVER
R6195 150
R6196 150
C6132 25V 4.7u
C6131 25V 4.7u
R6124 100
AA_UMH
AA_UML
C6130 16V 1u
R6176 100
D6012 B0ECHP000003
C6134 25V 4.7u
Q6160 B1ABNF000006
Q6161 B1ADNF000006
R6177 10
R6178 10k
R6179 10k
Q6140 RJP3053
Q6141 RJP3053
Q6142 RJP3053
R6141 15
R6140 15
R6143 15
R6142 15
R6145 15
R6144 15
C6140 630V 5600p
R6073 220k
R6074 220k
D6146 B0HBSN000008
D6147 B0HBSN000008
SS51
TO PANEL SUSTAIN ELECTRODE
SS52
TO PANEL SUSTAIN ELECTRODE
SS2-BOARD TNPA3559
SS55
SS20
SS23
TO PANEL SUSTAIN ELECTRODE
UP
TO PANEL SUSTAIN ELECTRODE
SS53
SS3-BOARD TNPA3560
SS56
SS21
SS22
TO PANEL SUSTAIN ELECTRODE
DOWN
L6014 G0ZZ00002183
TPSS1
R6257 0
IC6250 AN16016A-VF FET DRIVER
D6258 B0ECHP000003
R6258 0
R6254 10
R6197 100
R6198 100
C6260 25V 1u
C6257 25V 4.7u
R6081 100k
R6082 100k
R6259 100
R6260 100
AA_UEH
AA_UEL
C6258 16V 1u
C6262 25V 4.7u
R6255 10k
D6259 B0ECHP000003
D6250 B0JCME000037
R6250 100
L6251 J0JJC0000021
L6252 J0JJC0000021
R6251 100
D6251 B0JCME000037
Q6250 B1DFKM000002
Q6251 B1DFKM000002
D6254 MA2J11100L
D6257 B0ECHP000003
L6250 G0ZZ00002183
TPVe
Q6256 2SD1263AP0LB
R6271 100
R6272 100
R6276 22k
R6277 22k
R6278 22k
R6282 27k
R6283 27k
R6284 27k
R6293 5.6k
C6255 250V 47u
D6271 MA2J11100L
R6275 12k
R6274 10k
Q6257 2SC1473AEA
SS54
TO PANEL SUSTAIN ELECTRODE
C6266 25V 1000u
IC6251 C0ZBZ0000735
C6264 25V 1u
D6262 B0JCME000037
R6263 150
R6265 10k
C6265 25V 4.7u
R6266 47
Q6259 2SK3268OL
D6263 MA2J11100L
R6267 10k
R6264 100
R6261 1k
Q6261 2SK062000L
C6269 200V 220u
R6270 100k
R6199 100k
Q6260 B1DFKM000002
R6269 47
R6268 10k
FET DRIVER
VR6250 10k
R6280 0
R6281 1.2k
IC6252 C0DBEMB00002
TP24
TP25
TP26
TP27
TP28
TP29
TP30
TP31
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

TH-50PHD8BK/BS/EK/ES
SS-Board (1 of 2), SS2 and SS3-Board Schematic Diagram

TH-50PHD8BK/BS/EK/ES
SS-Board (1 of 2), SS2 and SS3-Board Schematic Diagram

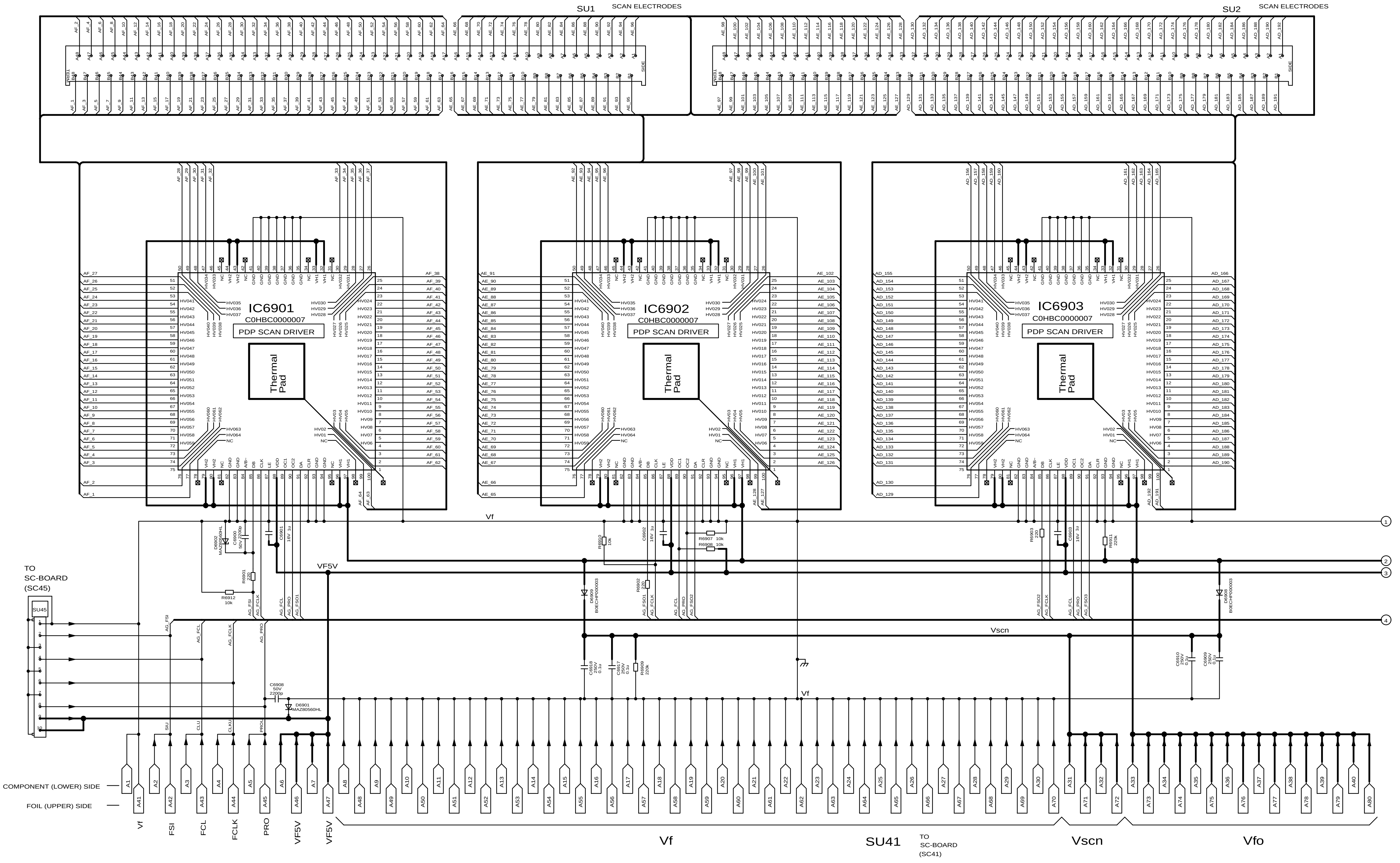
⚠ SS-BOARD TNPA3568 (2/2)


15V
5V
81V
75V
Vda_75V
IC6200
C0ZBZ0000895
FET DRIVER
IC6201
C0ZBZ0000895
FET DRIVER
IC6220
C0ZBZ0000895
FET DRIVER
IC6221
C0ZBZ0000895
FET DRIVER
IC6240
C0JBAZ000005
BUFFER
IC6062
C0BBBA000043
SOS DET
Q6240
Q6210
Q6211
Q6200
Q6212
Q6213
Q6202
Q6230
Q6231
Q6221
Q6223
Q6232
Q6233
Q6225
TPVDL
TPVDR
TO
C3-BOARD
(C35)
SS35
TO
C4-BOARD
(C42)
SS42
DSHL
DSLL
DMHL
DMLL
DMHR
DRV_SOS2
ZA6101
ZA6102
ZA6103
1
2
3
4

TH-50PHD8BK/BS/EK/ES
SS-Board (2 of 2) Schematic Diagram

TH-50PHD8BK/BS/EK/ES
SS-Board (2 of 2) Schematic Diagram

⚠ SU-BOARD TNPA3219AB (1/2)


SU1
To 1st 96pins of SCAN ELECTRODES
SU2
To 2nd 96pins of SCAN ELECTRODES
IC6901
C0HBC0000007
PDP SCAN DRIVER
Thermal Pad
IC6902
C0HBC0000007
PDP SCAN DRIVER
Thermal Pad
IC6903
C0HBC0000007
PDP SCAN DRIVER
Thermal Pad
Vf
VF5V
Vscn
TO SC-BOARD (SC45)
SU45
D6902 MAZ80560HL
C6900 50V 2200p
C6901 16V 1u
R6901 220
R6912 10k
C6908 50V 2200p
D6901 MAZ80560HL
R6910 10k
C6902 16V 1u
R6907 10k
R6908 10k
R6902 220
D6905 B0ECHP000003
C6918 250V 0.1u
C6917 250V 0.1u
R6909 220k
R6903 220
C6903 16V 1u
R6911 220k
D6908 B0ECHP000003
C6910 250V 0.1u
C6909 250V 0.1u
AG_FSI
AG_FCL
AG_FCLK
AG_PRO
AG_FSO1
AG_FSO2
AG_FSO3
SU
CLU
CLKU
PROU
COMPONENT (LOWER) SIDE
FOIL (UPPER) SIDE
Vf
FSI
FCL
FCLK
PRO
VF5V
VF5V
Vf
SU41
TO SC-BOARD (SC41)
Vscn
Vfo
①
②
③
④

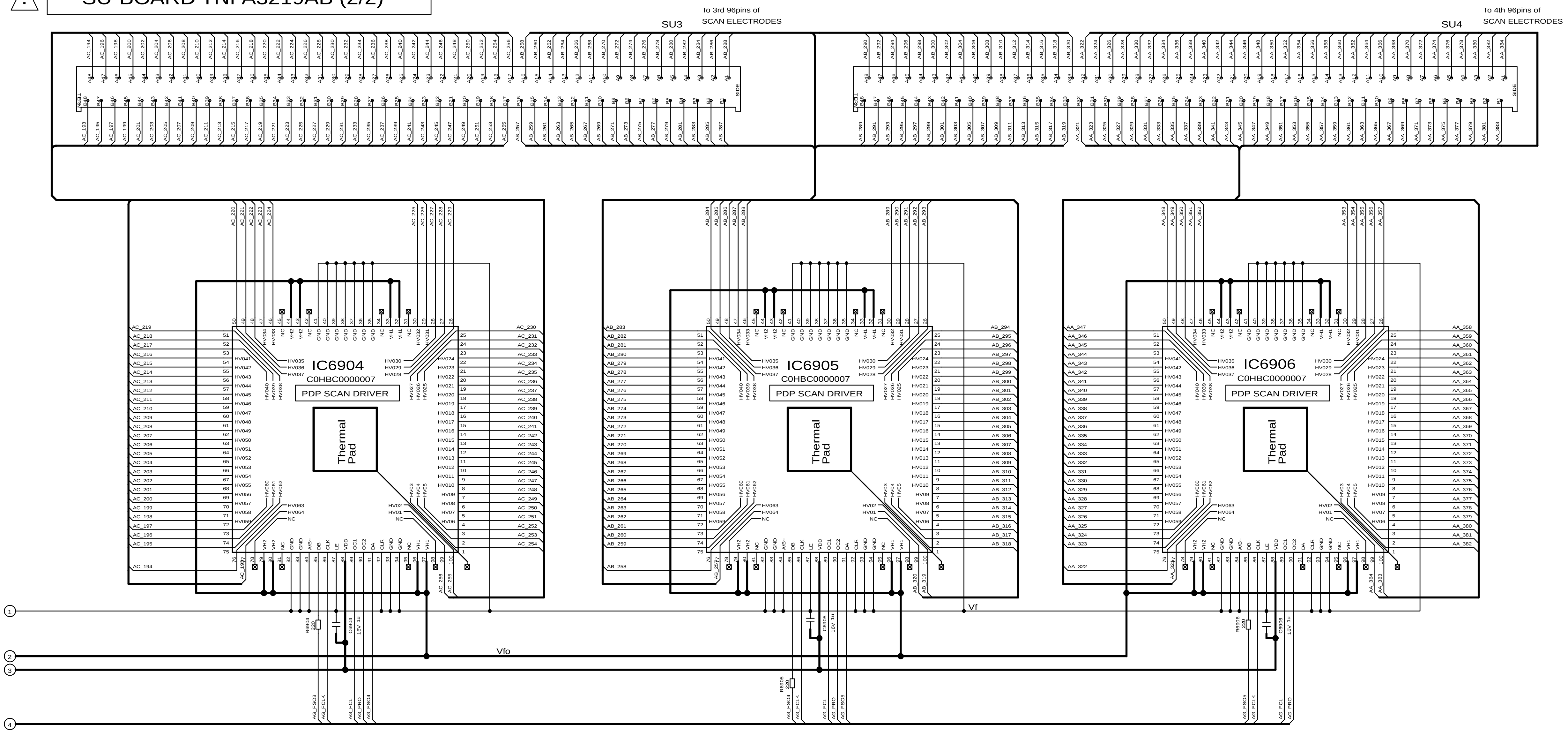
A
B
C
D
E

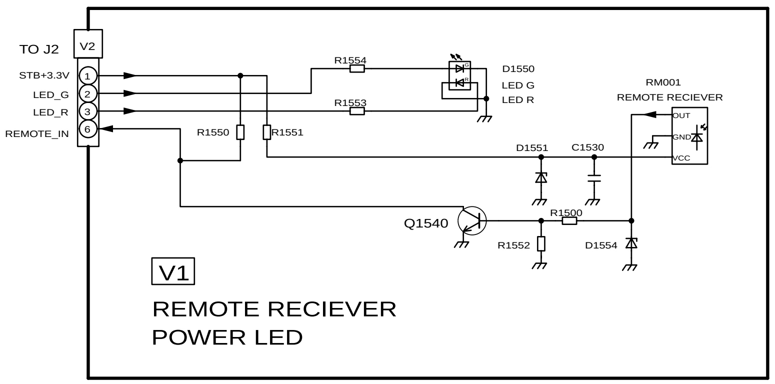
TH-50PHD8BK/BS/EK/ES
SU-Board (1 of 2) Schematic Diagram

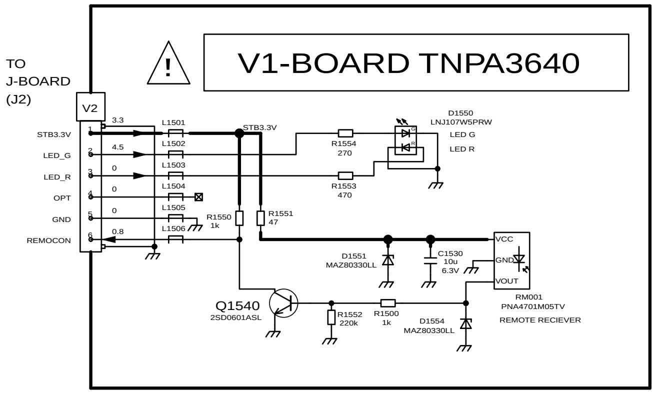
TH-50PHD8BK/BS/EK/ES
SU-Board (1 of 2) Schematic Diagram

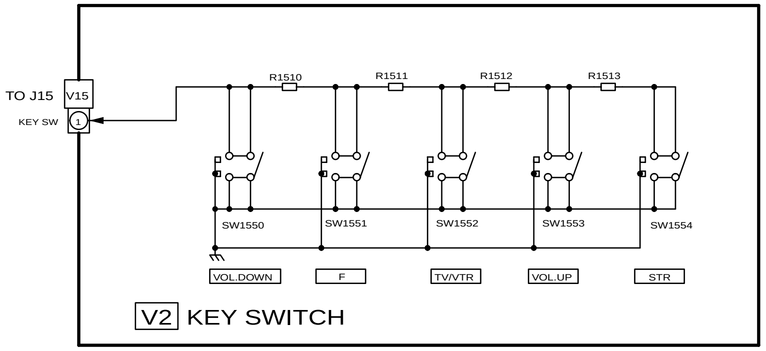
1 2 3 4 5 6 7 8

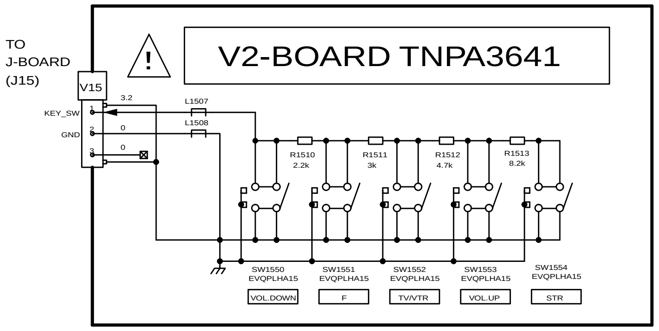
⚠ SU-BOARD TNPA3219AB (2/2)

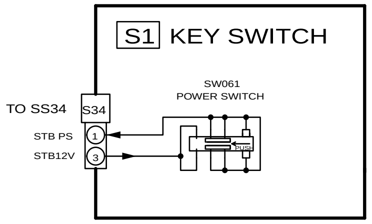

SU3
To 3rd 96pins of
SCAN ELECTRODES
SU4
To 4th 96pins of
SCAN ELECTRODES
SIDE
IC6904
C0HBC0000007
PDP SCAN DRIVER
Thermal Pad
IC6905
C0HBC0000007
PDP SCAN DRIVER
Thermal Pad
IC6906
C0HBC0000007
PDP SCAN DRIVER
Thermal Pad
Vf
Vfo
R6904 220
C6904 16V 1u
C6905 16V 1u
R6905 220
R6906 220
C6906 16V 1u
AG_FSO3
AG_FCLK
AG_FCL
AG_PRO
AG_FSO4
AG_FSO4
AG_FCLK
AG_FCL
AG_PRO
AG_FSO5
AG_FSO5
AG_FCLK
AG_FCL
AG_PRO
①
②
③
④

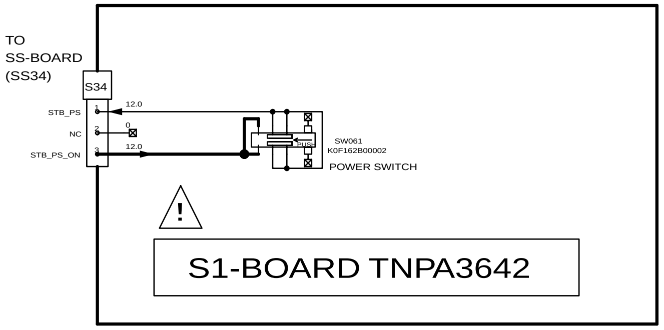

TO J2
V2
STB+3.3V
LED_G
LED_R
REMOTE_IN
R1554
R1553
D1550
LED G
LED R
RM001
REMOTE RECIEVER
OUT
GND
VCC
R1550
R1551
D1551
C1530
Q1540
R1500
R1552
D1554
V1
REMOTE RECIEVER
POWER LED


TO
J-BOARD
(J2)
V1-BOARD TNPA3640
V2
STB3.3V
LED_G
LED_R
OPT
GND
REMOCON
3.3
4.5
0
0
0
0.8
L1501
L1502
L1503
L1504
L1505
L1506
STB3.3V
R1554
270
R1553
470
D1550
LNJ107W5PRW
LED G
LED R
R1550
1k
R1551
47
D1551
MAZ80330LL
C1530
10u
6.3V
VCC
GND
VOUT
RM001
PNA4701M05TV
REMOTE RECIEVER
Q1540
2SD0601ASL
R1552
220k
R1500
1k
D1554
MAZ80330LL


TO J15
V15
KEY SW
R1510
R1511
R1512
R1513
SW1550
SW1551
SW1552
SW1553
SW1554
VOL.DOWN
F
TV/VTR
VOL.UP
STR
V2
KEY SWITCH


TO
J-BOARD
(J15)
V2-BOARD TNPA3641
V15
KEY_SW
GND
3.2
0
0
L1507
L1508
R1510
2.2k
R1511
3k
R1512
4.7k
R1513
8.2k
SW1550
EVQPLHA15
SW1551
EVQPLHA15
SW1552
EVQPLHA15
SW1553
EVQPLHA15
SW1554
EVQPLHA15
VOL.DOWN
F
TV/VTR
VOL.UP
STR


S1
KEY SWITCH
SW061
POWER SWITCH
TO SS34
S34
STB PS
STB12V


TO
SS-BOARD
(SS34)
S34
STB_PS
NC
STB_PS_ON
12.0
0
12.0
SW061
K0F162B00002
POWER SWITCH
PUSH
S1-BOARD TNPA3642

15 Schematic Diagrams

15.1. Schematic Diagram Notes

Important Safety Notice

Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacture's specified parts.

Notes:

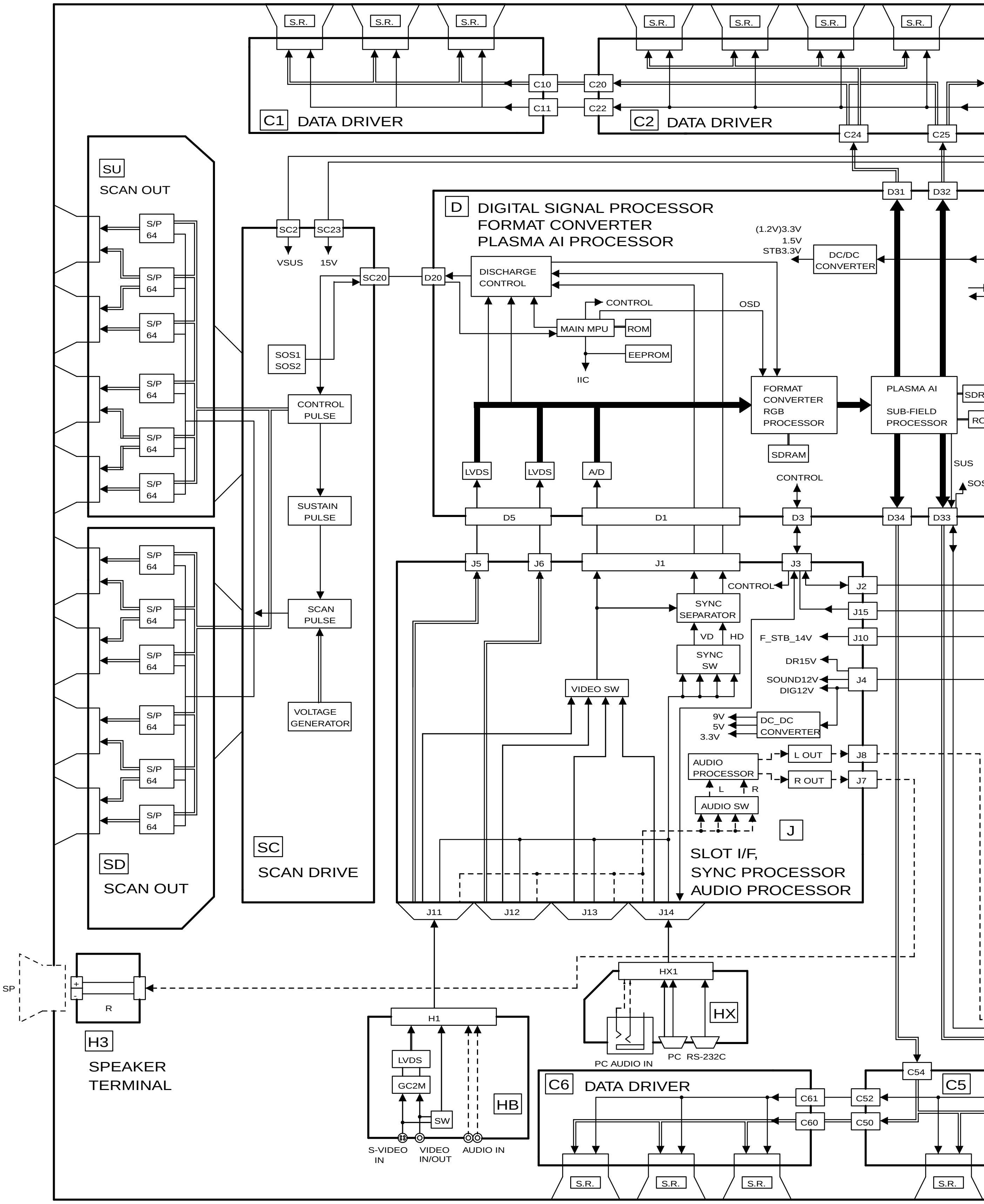
1. **Resistor**
   Unit of resistance is OHM [Ω] (K=1,000, M=1,000,000).
2. **Capacitor**
   Unit of capacitance is µF, unless otherwise noted.
3. Coil
   Unit of inductance is H, unless otherwise noted.
4. Test Point
   ⚲ : Test Point position
5. Earth Symbol
   ⏚ : Chassis Earth (Cold) ▽ : Line Earth (Hot)
6. Voltage Measurement
   Voltage is measured by a DC voltmeter.
   Conditions of the measurement are the following:
   Power Source AC120V, 50/60Hz
   Receiving Signal .... Colour Bar signal (RF)
   All customer's controls .... Maximum positions
7. When arrow mark (↗) is found, connection is easily found from the direction of arrow.

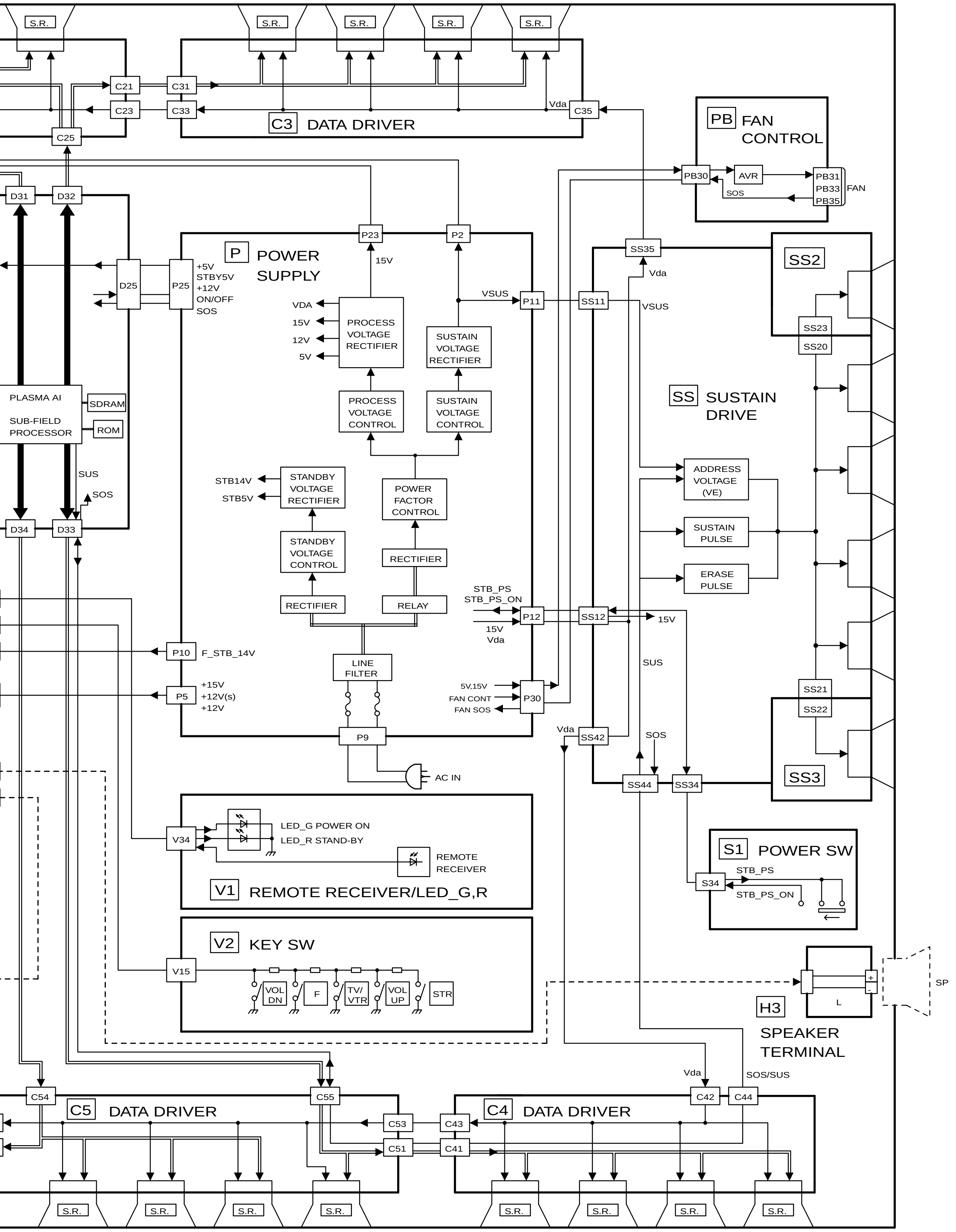
8. Indicates the major signal flow. : Video ➡ Audio ⇨
9. This schematic diagram is the latest at the time of printing and subject to change without notice.

Remarks:

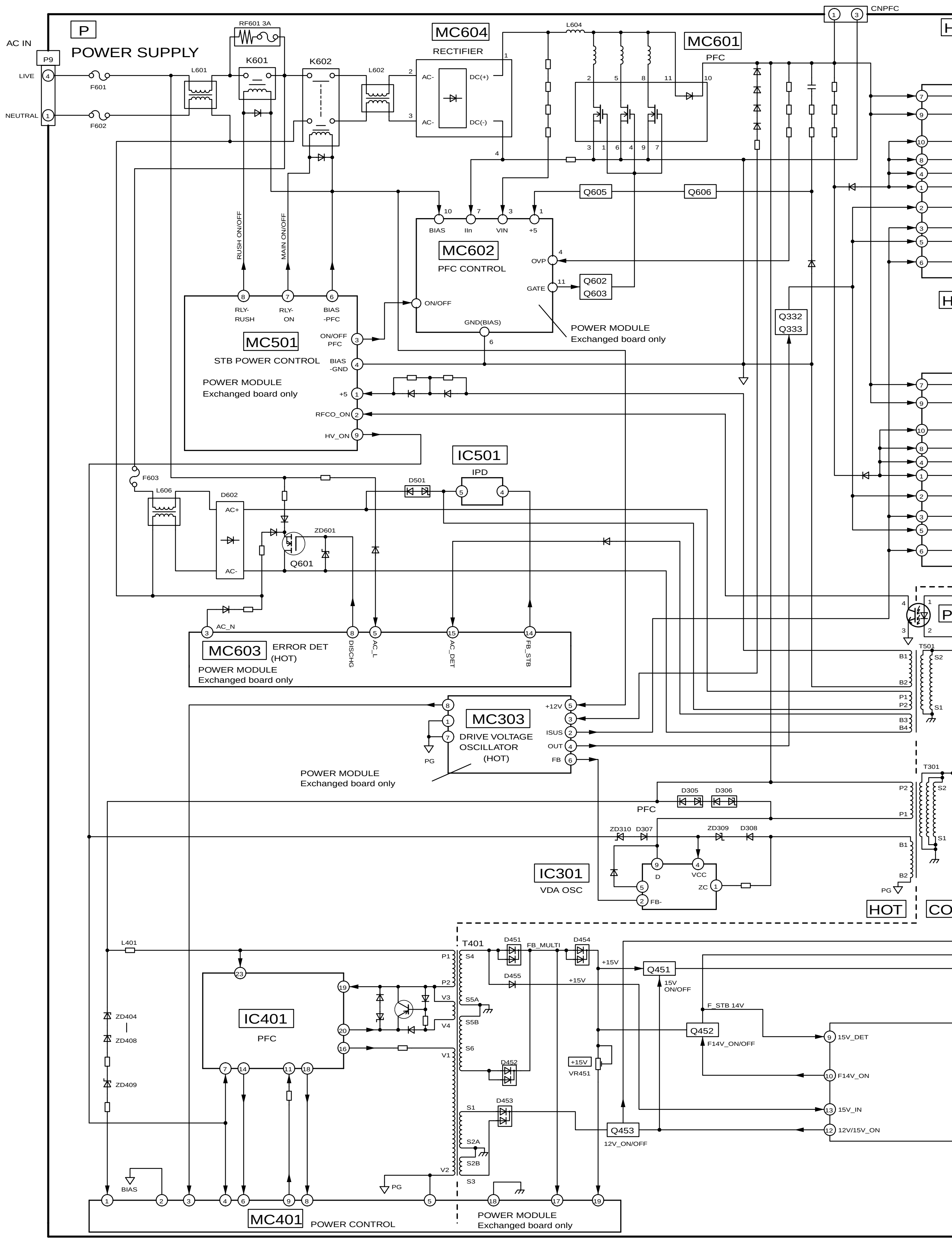
1. The Power Circuit contains a circuit area which uses a separate power supply to isolate the earth connection.
   The circuit is defined by HOT and COLD indications in the schematic diagram. Take the follwing precautions.
   All circuits, except the Power Circuit, are cold.
   Precautions
   a. Do not touch the hot part or the hot and cold parts at the same time or you may be shocked.
   b. Do not short- circuit the hot and cold circuits or a fuse may blow and parts may break.
   c. Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously or a fuse may blow.
   Connect the earth of instruments to the earth connection of the circuit being measured.
   d. Make sure to disconnect the power plug before removing the chassis.

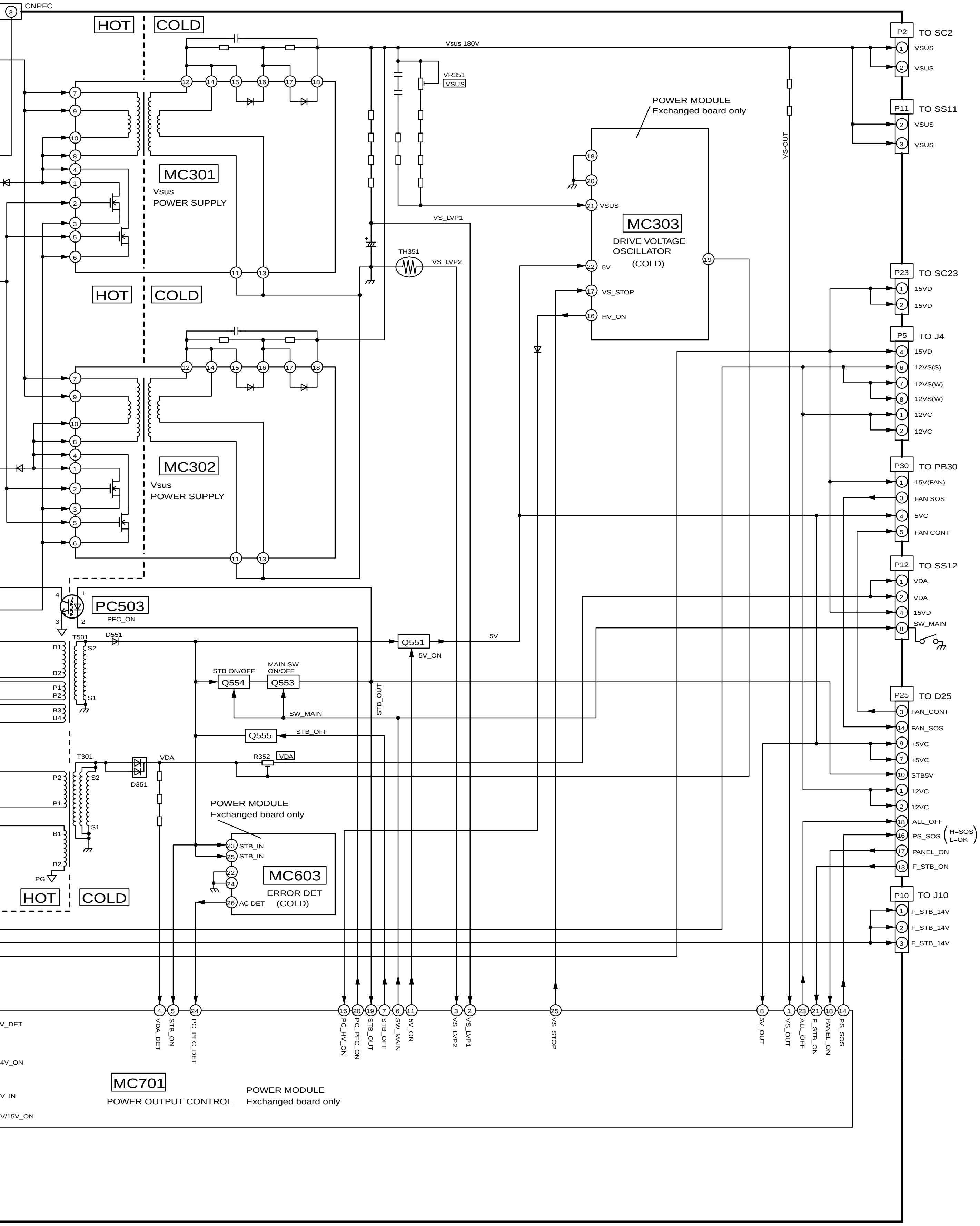
15.2. Main Block Diagram


S.R.
C1 DATA DRIVER
C10
C11
C20
C22
C2 DATA DRIVER
C24
C25
SU
SCAN OUT
S/P 64
SC2
SC23
VSUS
15V
SC20
D20
SOS1
SOS2
CONTROL PULSE
SUSTAIN PULSE
SCAN PULSE
VOLTAGE GENERATOR
SC
SCAN DRIVE
SD
SCAN OUT
D31
D32
D
DIGITAL SIGNAL PROCESSOR
FORMAT CONVERTER
PLASMA AI PROCESSOR
(1.2V)3.3V
1.5V
STB3.3V
DC/DC CONVERTER
DISCHARGE CONTROL
CONTROL
OSD
MAIN MPU
ROM
EEPROM
IIC
FORMAT CONVERTER RGB PROCESSOR
PLASMA AI
SUB-FIELD PROCESSOR
SDR
RO
SDRAM
SUS
SOS
CONTROL
LVDS
LVDS
A/D
D5
D1
D3
D34
D33
J5
J6
J1
J3
J2
J15
J10
J4
J8
J7
CONTROL
SYNC SEPARATOR
VD
HD
SYNC SW
F_STB_14V
DR15V
SOUND12V
DIG12V
VIDEO SW
9V
5V
3.3V
DC_DC CONVERTER
AUDIO PROCESSOR
L OUT
R OUT
L
R
AUDIO SW
J
SLOT I/F,
SYNC PROCESSOR
AUDIO PROCESSOR
J11
J12
J13
J14
SP
+
-
R
H3
SPEAKER TERMINAL
HX1
HX
PC AUDIO IN
PC
RS-232C
H1
LVDS
GC2M
SW
HB
S-VIDEO IN
VIDEO IN/OUT
AUDIO IN
C6
DATA DRIVER
C61
C60
C54
C52
C50
C5


S.R.
C21
C23
C25
C31
C33
C35
Vda
C3 DATA DRIVER
PB FAN CONTROL
PB30
AVR
SOS
PB31
PB33
PB35
FAN
D31
D32
D25
P25
+5V
STBY5V
+12V
ON/OFF
SOS
P23
P2
P POWER SUPPLY
15V
VSUS
VDA
15V
12V
5V
PROCESS VOLTAGE RECTIFIER
SUSTAIN VOLTAGE RECTIFIER
PROCESS VOLTAGE CONTROL
SUSTAIN VOLTAGE CONTROL
P11
SS11
SS35
Vda
VSUS
SS2
SS23
SS20
SS SUSTAIN DRIVE
PLASMA AI
SUB-FIELD PROCESSOR
SDRAM
ROM
SUS
SOS
STB14V
STB5V
STANDBY VOLTAGE RECTIFIER
POWER FACTOR CONTROL
STANDBY VOLTAGE CONTROL
RECTIFIER
ADDRESS VOLTAGE (VE)
SUSTAIN PULSE
ERASE PULSE
D34
D33
RECTIFIER
RELAY
STB_PS
STB_PS_ON
15V
Vda
P12
SS12
15V
SUS
P10
F_STB_14V
LINE FILTER
P5
+15V
+12V(s)
+12V
5V,15V
FAN CONT
FAN SOS
P30
SS21
SS22
Vda
SS42
SOS
P9
AC IN
SS44
SS34
SS3
V34
LED_G POWER ON
LED_R STAND-BY
REMOTE RECEIVER
V1 REMOTE RECEIVER/LED_G,R
S1 POWER SW
STB_PS
S34
STB_PS_ON
V2 KEY SW
V15
VOL DN
F
TV/ VTR
VOL UP
STR
+
-
L
SP
H3 SPEAKER TERMINAL
Vda
SOS/SUS
C54
C55
C5 DATA DRIVER
C53
C51
C43
C41
C4 DATA DRIVER
C42
C44

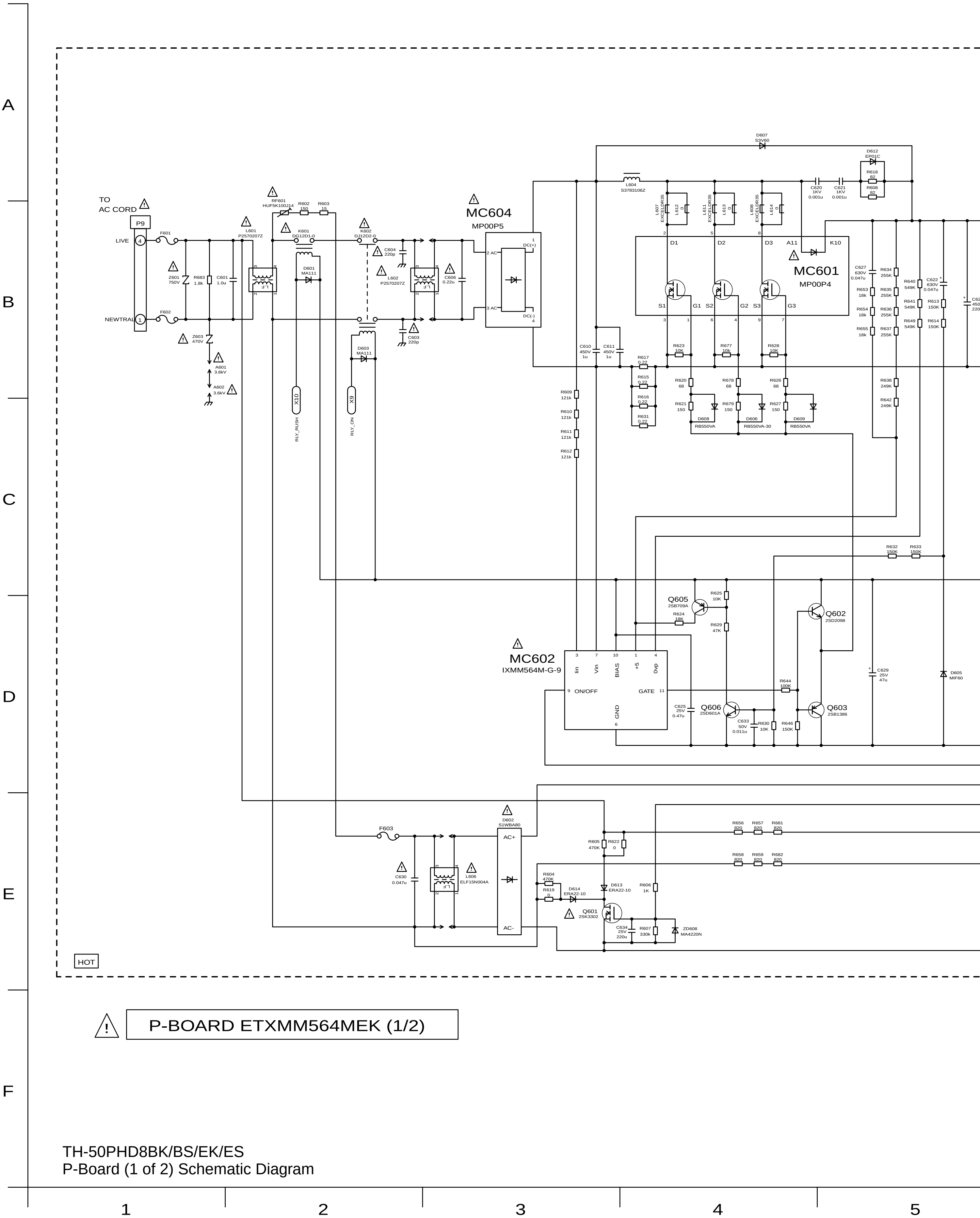
15.3. P-Board Block Diagram


P
POWER SUPPLY
AC IN
P9
LIVE
NEUTRAL
F601
F602
L601
RF601 3A
K601
K602
L602
MC604
RECTIFIER
AC-
DC(+)
DC(-)
L604
MC601
PFC
CNPFC
Q605
Q606
MC602
PFC CONTROL
BIAS
IIn
VIN
+5
OVP
GATE
ON/OFF
GND(BIAS)
Q602
Q603
POWER MODULE
Exchanged board only
Q332
Q333
RUSH ON/OFF
MAIN ON/OFF
MC501
STB POWER CONTROL
RLY-RUSH
RLY-ON
BIAS -PFC
ON/OFF PFC
BIAS -GND
+5
RFCO_ON
HV_ON
POWER MODULE
Exchanged board only
IC501
IPD
D501
F603
L606
D602
AC+
AC-
ZD601
Q601
MC603
ERROR DET
(HOT)
POWER MODULE
Exchanged board only
AC_N
DISCHG
AC_L
AC_DET
FB_STB
MC303
DRIVE VOLTAGE
OSCILLATOR
(HOT)
+12V
ISUS
OUT
FB
PG
POWER MODULE
Exchanged board only
T501
B1
B2
P1
P2
B3
B4
S2
S1
T301
D305
D306
PFC
ZD310
D307
ZD309
D308
IC301
VDA OSC
D
VCC
ZC
FB-
HOT
CO
L401
ZD404
ZD408
ZD409
IC401
PFC
T401
P1
P2
V3
V4
V1
V2
S4
S5A
S5B
S6
S1
S2A
S2B
S3
D451
FB_MULTI
D454
D455
D452
D453
+15V
Q451
15V ON/OFF
F_STB 14V
Q452
F14V_ON/OFF
+15V
VR451
Q453
12V_ON/OFF
15V_DET
F14V_ON
15V_IN
12V/15V_ON
BIAS
PG
MC401
POWER CONTROL
POWER MODULE
Exchanged board only

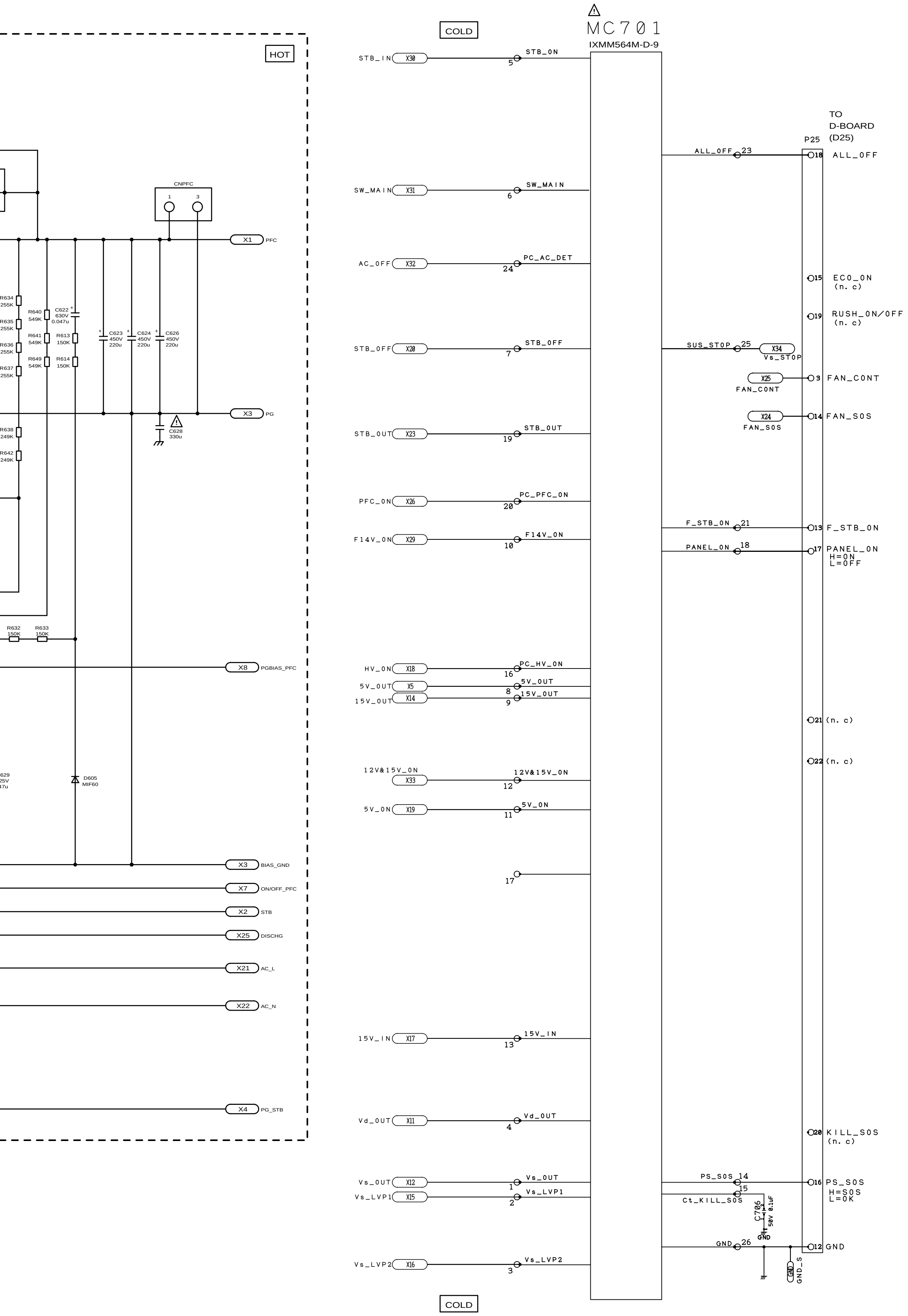

CNPFC
HOT
COLD
Vsus 180V
VR351
VSUS
P2
TO SC2
VSUS
VSUS
P11
TO SS11
VSUS
VSUS
POWER MODULE
Exchanged board only
VS-OUT
MC301
Vsus
POWER SUPPLY
MC303
VSUS
VS_LVP1
DRIVE VOLTAGE
OSCILLATOR
(COLD)
TH351
VS_LVP2
5V
VS_STOP
HV_ON
HOT
COLD
P23
TO SC23
15VD
15VD
P5
TO J4
15VD
12VS(S)
12VS(W)
12VS(W)
12VC
12VC
MC302
Vsus
POWER SUPPLY
P30
TO PB30
15V(FAN)
FAN SOS
5VC
FAN CONT
P12
TO SS12
VDA
VDA
15VD
SW_MAIN
PC503
PFC_ON
T501
D551
B1
S2
B2
P1
P2
S1
B3
B4
Q551
5V
5V_ON
STB ON/OFF
MAIN SW
ON/OFF
Q554
Q553
SW_MAIN
STB_OUT
Q555
STB_OFF
T301
D351
VDA
R352
VDA
P2
S2
P1
S1
B1
B2
PG
HOT
COLD
POWER MODULE
Exchanged board only
STB_IN
STB_IN
MC603
ERROR DET
(COLD)
AC DET
P25
TO D25
FAN_CONT
FAN_SOS
+5VC
+5VC
STB5V
12VC
12VC
ALL_OFF
PS_SOS
H=SOS
L=OK
PANEL_ON
F_STB_ON
P10
TO J10
F_STB_14V
F_STB_14V
F_STB_14V
V_DET
VDA_DET
STB_ON
PC_PFC_DET
PC_HV_ON
PC_PFC_ON
STB_OUT
STB_OFF
SW_MAIN
5V_ON
VS_LVP2
VS_LVP1
VS_STOP
5V_OUT
VS_OUT
ALL_OFF
F_STB_ON
PANEL_ON
PS_SOS
4V_ON
V_IN
V/15V_ON
MC701
POWER OUTPUT CONTROL
POWER MODULE
Exchanged board only

TH-50PHD8BK/BS/EK/ES
P-Board Block Diagram

15.4. P-Board (1 of 2) Schematic Diagram


A
B
C
D
E
F
1
2
3
4
5
TO
AC CORD
P9
LIVE
NEWTRAL
F601
F602
Z601
750V
R683
1.8k
C601
1.0u
Z603
470V
A601
3.6kV
A602
3.6kV
L601
P2570207Z
RF601
HUF5K100J14
R602
150
R603
15
K601
DG12D1-0
D601
MA111
K602
DJ12D2-0
C604
220p
C603
220p
D603
MA111
X10
RLY_RUSH
X9
RLY_ON
L602
P2570207Z
C606
0.22u
MC604
MP00P5
DC(+)
DC(-)
AC
D607
S3V60
D612
EP01C
R618
82
R608
82
C620
1KV
0.001u
C621
1KV
0.001u
L604
S3783106Z
L607
EXCELDR35
L612
0
L611
EXCELDR35
L613
0
L608
EXCELDR35
L614
0
D1
D2
D3
A11
K10
S1
G1
S2
G2
S3
G3
MC601
MP00P4
C627
630V
0.047u
R634
255K
R653
18k
R635
255K
R654
18k
R636
255K
R655
18k
R637
255K
R640
549K
R641
549K
R649
549K
C622
630V
0.047u
R613
150K
R614
150K
R638
249K
R642
249K
C610
450V
1u
C611
450V
1u
R617
0.22
R615
0.22
R616
0.22
R631
0.22
R623
10K
R677
10k
R628
10K
R620
68
R678
68
R626
68
R621
150
R679
150
R627
150
D608
RB550VA
D606
RB550VA-30
D609
RB550VA
R609
121k
R610
121k
R611
121k
R612
121k
R632
150K
R633
150K
Q605
2SB709A
R625
10K
R624
18K
R629
47K
Q602
2SD2098
MC602
IXMM564M-G-9
Iin
Vin
BIAS
+5
Ovp
ON/OFF
GATE
GND
C625
25V
0.47u
Q606
2SD601A
C633
50V
0.011u
R630
10K
R644
100K
R646
150K
Q603
2SB1386
C629
25V
47u
D605
MIF60
F603
C630
0.047u
L606
ELF15N004A
D602
S1WBA80
AC+
AC-
R605
470K
R622
0
R604
470K
R619
0
D614
ERA22-10
D613
ERA22-10
R606
1K
Q601
2SK3302
C634
25V
220u
R607
330k
ZD608
MA4220N
R656
820
R657
820
R681
820
R658
820
R659
820
R682
820
HOT
P-BOARD ETXMM564MEK (1/2)

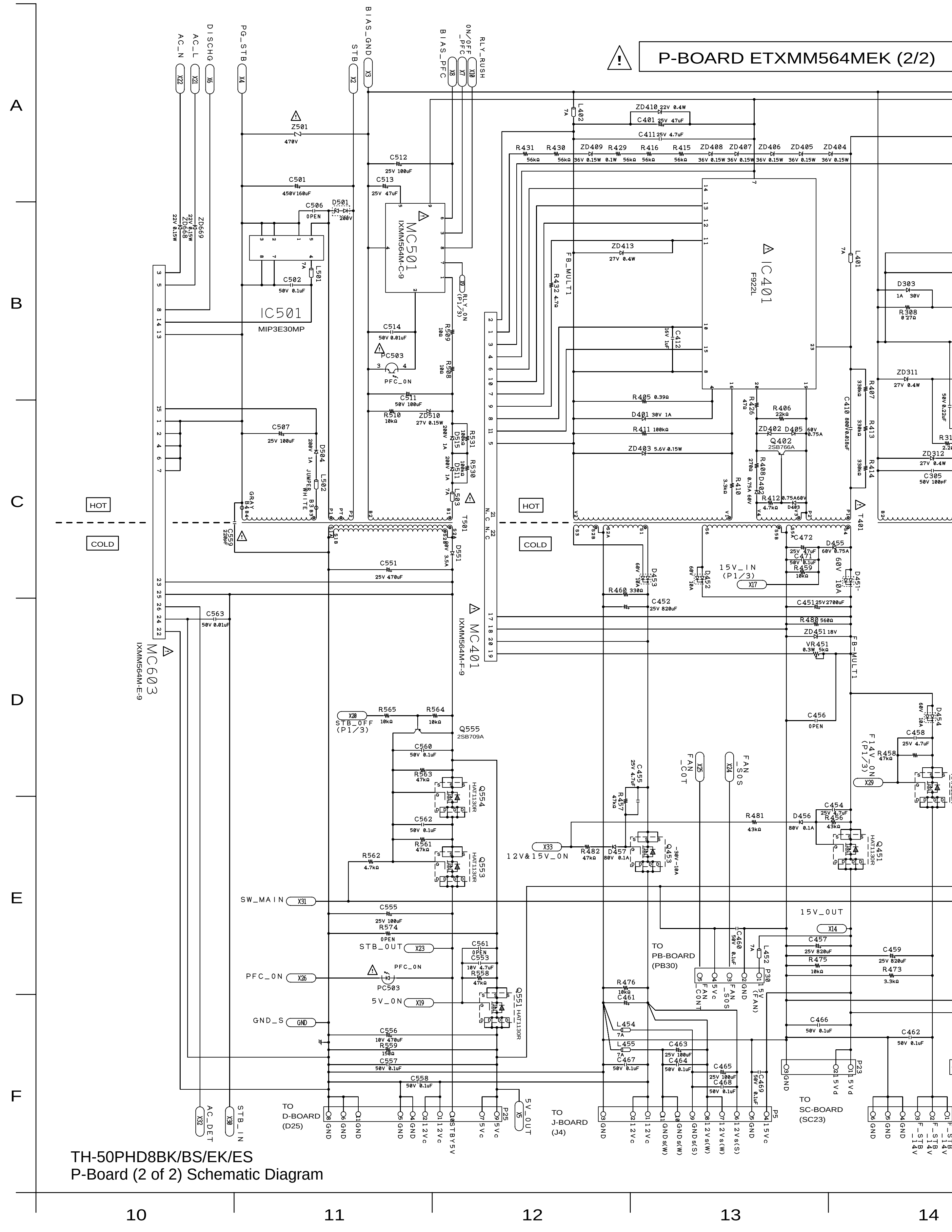
TH-50PHD8BK/BS/EK/ES
P-Board (1 of 2) Schematic Diagram


COLD
MC701
IXMM564M-D-9
HOT
CNPFC
1
3
X1 PFC
X3 PG
R634 255K
R635 255K
R636 255K
R637 255K
R640 549K
R641 549K
R649 549K
C622 630V 0.047u
R613 150K
R614 150K
C623 450V 220u
C624 450V 220u
C626 450V 220u
C628 330u
R638 249K
R642 249K
R632 150K
R633 150K
X8 PGBIAS_PFC
629 25V 47u
D605 MIF60
X3 BIAS_GND
X7 ON/OFF_PFC
X2 STB
X25 DISCHG
X21 AC_L
X22 AC_N
X4 PG_STB
STB_IN X30 5 STB_ON
SW_MAIN X31 6 SW_MAIN
AC_OFF X32 24 PC_AC_DET
STB_OFF X20 7 STB_OFF
STB_OUT X23 19 STB_OUT
PFC_ON X26 20 PC_PFC_ON
F14V_ON X29 10 F14V_ON
HV_ON X18 16 PC_HV_ON
5V_OUT X5 8 5V_OUT
15V_OUT X14 9 15V_OUT
12V&15V_ON X33 12 12V&15V_ON
5V_ON X19 11 5V_ON
17
15V_IN X17 13 15V_IN
Vd_OUT X11 4 Vd_OUT
Vs_OUT X12 1 Vs_OUT
Vs_LVP1 X15 2 Vs_LVP1
Vs_LVP2 X16 3 Vs_LVP2
TO D-BOARD (D25)
P25
ALL_OFF 23 18 ALL_OFF
15 ECO_ON (n. c)
19 RUSH_ON/OFF (n. c)
SUS_STOP 25 X34 Vs_STOP
X25 FAN_CONT 3 FAN_CONT
X24 FAN_SOS 14 FAN_SOS
F_STB_ON 21 13 F_STB_ON
PANEL_ON 18 17 PANEL_ON H=ON L=OFF
21 (n. c)
22 (n. c)
20 KILL_SOS (n. c)
PS_SOS 14 16 PS_SOS H=SOS L=OK
Ct_KILL_SOS 15
C706 50V 0.1uF
GND
GND 26 12 GND
GND_S

TH-50PHD8BK/BS/EK/ES
P-Board (1 of 2) Schematic Diagram

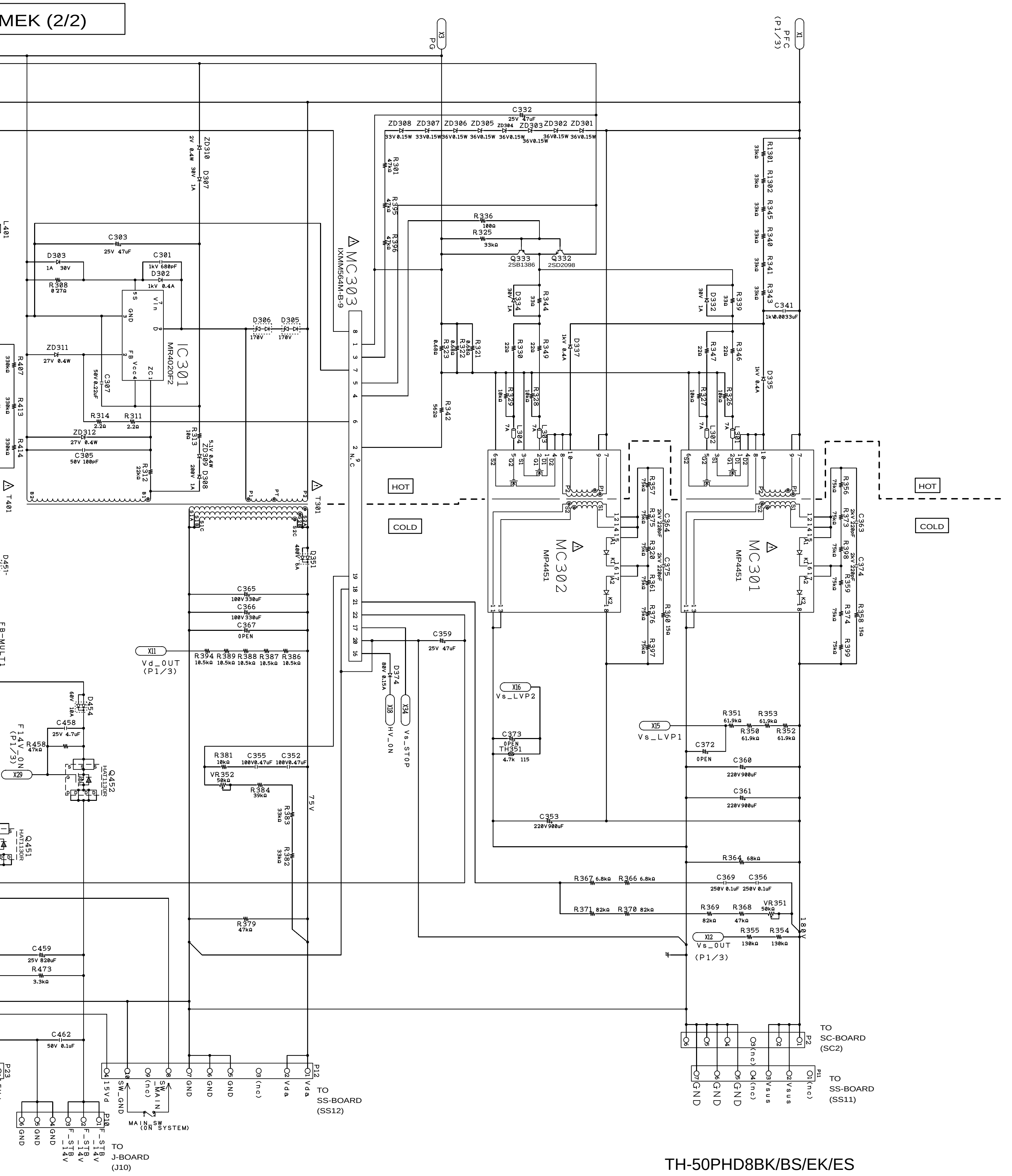
5 6 7 8 9

15.5. P-Board (2 of 2) Schematic Diagram


P-BOARD ETXMM564MEK (2/2)
A
B
C
D
E
F
10
11
12
13
14
AC_N
AC_L
DISCHG
PG_STB
STB
BIAS_GND
BIAS_PFC
ON/OFF _PFC
RLY_RUSH
X22
X21
X6
X4
X2
X3
X8
X7
X10
Z501 470V
C501 450V160uF
C506 OPEN
D501 200V
C512 25V 100uF
C513 25V 47uF
MC501 IXMM564M-C-9
ZD669 22V 0.15W
ZD668 22V 0.15W
L501 7A
C502 50V 0.1uF
IC501 MIP3E30MP
C514 50V 0.01uF
PC503
PFC_ON
R509 10Ω
R508 10Ω
RLY_ON (P1/3)
X9
C511 50V 100uF
R510 10kΩ
ZD510 27V 0.15W
C507 25V 100uF
D504 200V 1A
L502 JUMPER WHITE
D515 200V 1A
D511 200V 1A
R531 100kΩ
R530 100kΩ
L503 7A
GRAY
T501
HOT
COLD
C559 2200pF
D551 180V 3.5A
C551 25V 470uF
C563 50V 0.01uF
MC603 IXMM564M-E-9
MC401 IXMM564M-F-9
L402 7A
ZD410 22V 0.4W
C401 25V 47uF
C411 25V 4.7uF
R431 56kΩ
R430 56kΩ
ZD409 36V 0.15W
R429 0.1W
R416 56kΩ
R415 56kΩ
ZD408 36V 0.15W
ZD407 36V 0.15W
ZD406 36V 0.15W
ZD405 36V 0.15W
ZD404 36V 0.15W
ZD413 27V 0.4W
FB_MULT1
R432 4.7Ω
IC401 F9222L
L401 7A
C412 16V 1uF
R405 0.39Ω
D401 30V 1A
R411 100kΩ
ZD403 5.6V 0.15W
R426 47Ω
R406 22kΩ
ZD402
D405 60V 0.75A
Q402 2SB766A
R408 270Ω
D402 0.75A 60V
R410 3.3kΩ
R412 4.7kΩ
D403 0.75A60V
R407 330kΩ
R413 330kΩ
R414 330kΩ
C410 800V0.018uF
D303 1A 30V
R308 0.27Ω
ZD311 27V 0.4W
ZD312 27V 0.4W
C305 50V 100pF
T401
C472
D455 60V 0.75A
C471 50V 0.1uF
R459 10kΩ
D453 60V 10A
D452 60V 10A
D451 60V 10A
15V_IN (P1/3)
X17
R460 330Ω
C452 25V 820uF
C451 25V 2700uF
R480 560Ω
ZD451 18V
VR451 0.3W 5kΩ
FB_MULT1
D454 60V 10A
C456 OPEN
C458 25V 4.7uF
F14V_ON (P1/3)
X29
R458 47kΩ
STB_OFF (P1/3)
X20
R565 10kΩ
R564 10kΩ
Q555 2SB709A
C560 50V 0.1uF
R563 47kΩ
Q554 HAT1130R
C562 50V 0.1uF
R561 47kΩ
Q553 HAT1130R
R562 4.7kΩ
SW_MAIN
X31
C555 25V 100uF
R574 OPEN
STB_OUT
X23
C561 OPEN
C553 10V 4.7uF
R558 47kΩ
Q551 HAT1130R
PFC_ON
X26
PC503
5V_ON
X19
GND_S
GND
C556 10V 470uF
R559 150Ω
C557 50V 0.1uF
C558 50V 0.1uF
C455 25V 4.7uF
R457 47kΩ
FAN_COT
X25
FAN_SOS
X24
R481 43kΩ
D456 80V 0.1A
C454 25V 4.7uF
R456 43kΩ
Q451 HAT1130R
12V&15V_ON
X33
R482 47kΩ
D457 80V 0.1A
Q453 -30V -10A
15V_OUT
X14
C460 50V 0.1uF
L452 7A
C457 25V 820uF
R475 10kΩ
C459 25V 820uF
R473 3.3kΩ
TO PB-BOARD (PB30)
P30
FAN_CONT
5Vc
FAN_SOS
GND
15V(FAN)
R476 10kΩ
C461
L454 7A
L455 7A
C467 50V 0.1uF
C463 25V 100uF
C464 50V 0.1uF
C465 25V 100uF
C468 50V 0.1uF
C469 50V 0.1uF
C466 50V 0.1uF
C462 50V 0.1uF
TO D-BOARD (D25)
P25
GND
12Vc
STBY5V
5Vc
5V_OUT
X5
TO J-BOARD (J4)
P5
GND(W)
GND(S)
12V(W)
12V(S)
15Vc
TO SC-BOARD (SC23)
P23
15Vd
F_STB
F_14V
AC_DET
X32
STB_IN
X30

TH-50PHD8BK/BS/EK/ES
P-Board (2 of 2) Schematic Diagram

MEK (2/2)


X3
PG
X1
PFC (P1/3)
C332
ZD308 ZD307 ZD306 ZD305 ZD304 ZD303 ZD302 ZD301
ZD310
D307
L401
C303
D303
C301
D302
R308
IC301
MR4020F2
MC303
IXMM5564M-B-9
R301
R395
R396
R336
R325
Q333
2SB1386
Q332
2SD2098
D334
R344
R1301 R1302 R345 R340 R341 R343
C341
D332
R339
D306
D305
ZD311
R407
R413
R414
C307
R314
R311
ZD312
C305
R312
R313
ZD309
D308
T401
T301
R321
R322
R323
R342
R330
R349
D337
R329
R328
L304
L303
R347
R346
D335
R327
R326
L302
L301
HOT
COLD
MC302
MP4451
MC301
MP4451
R357 R375 R320 R361 R376 R360 R397
C364
C375
R356 R373 R398 R359 R374 R358 R399
C363
C374
D351
C365
C366
C367
X11
Vd_OUT (P1/3)
R394 R389 R388 R387 R386
C359
D374
X18
HV_ON
X34
Vs_STOP
X16
Vs_LVP2
X15
Vs_LVP1
C373
TH351
R351 R353 R350 R352
C372
C360
C361
C353
R364
R367 R366
C369 C356
R371 R370
R369 R368
VR351
R355 R354
180V
X12
Vs_OUT (P1/3)
D454
C458
R458
F14V_ON (P1/3)
X29
Q452
HAT1130R
Q451
HAT1130R
R381 C355 C352
VR352
R384
R383
R382
75V
R379
C459
R473
C462
P23
P12
15Vd
SW_GND
(nc)
SW_MAIN
GND
GND
GND
(nc)
Vda
Vda
MAIN SW (ON SYSTEM)
TO SS-BOARD (SS12)
P10
GND
GND
GND
F_STB_14V
F_STB_14V
F_STB_14V
TO J-BOARD (J10)
P2
TO SC-BOARD (SC2)
P11
GND
GND
GND
(nc)
Vsus
Vsus
(nc)
TO SS-BOARD (SS11)
14
15
16
17
18

TH-50PHD8BK/BS/EK/ES
P-Board (2 of 2) Schematic Diagram

15.6. PB-Board Block and Schematic Diagram

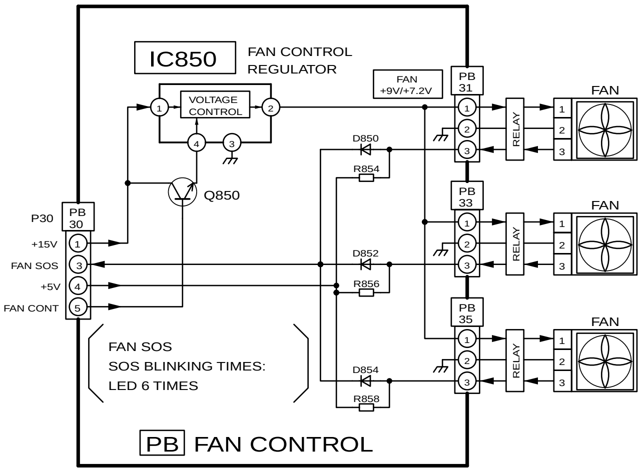
A

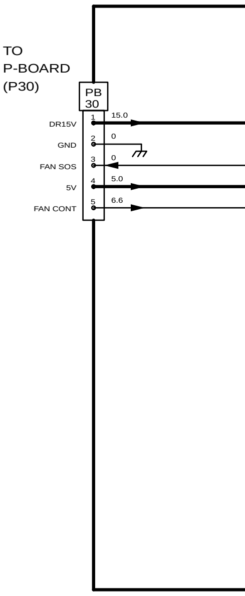
B

C

D

E


IC850
FAN CONTROL
REGULATOR
VOLTAGE
CONTROL
1
2
4
3
Q850
FAN
+9V/+7.2V
PB
31
PB
33
PB
35
P30
PB
30
+15V
FAN SOS
+5V
FAN CONT
1
3
4
5
D850
R854
D852
R856
D854
R858
RELAY
RELAY
RELAY
FAN
FAN
FAN
FAN SOS
SOS BLINKING TIMES:
LED 6 TIMES
PB FAN CONTROL

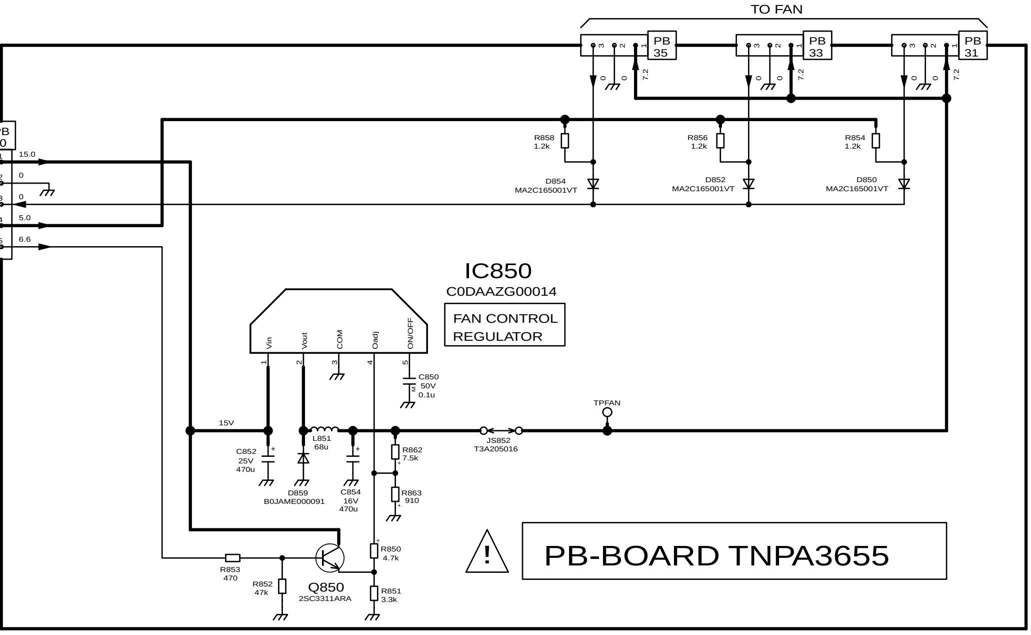

TO
P-BOARD
(P30)
PB
30
DR15V
GND
FAN SOS
5V
FAN CONT
1
2
3
4
5
15.0
0
0
5.0
6.6

1

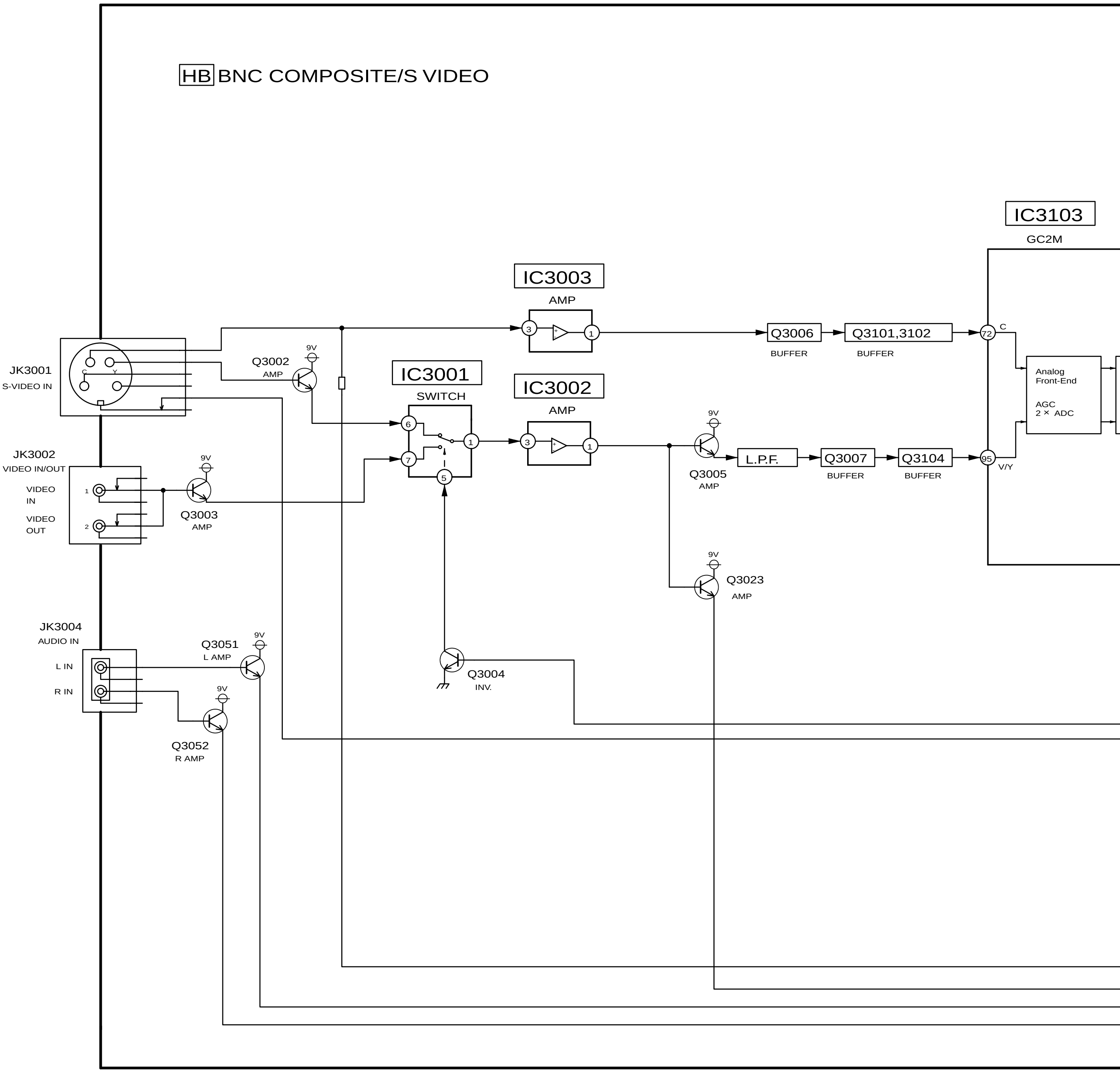
2

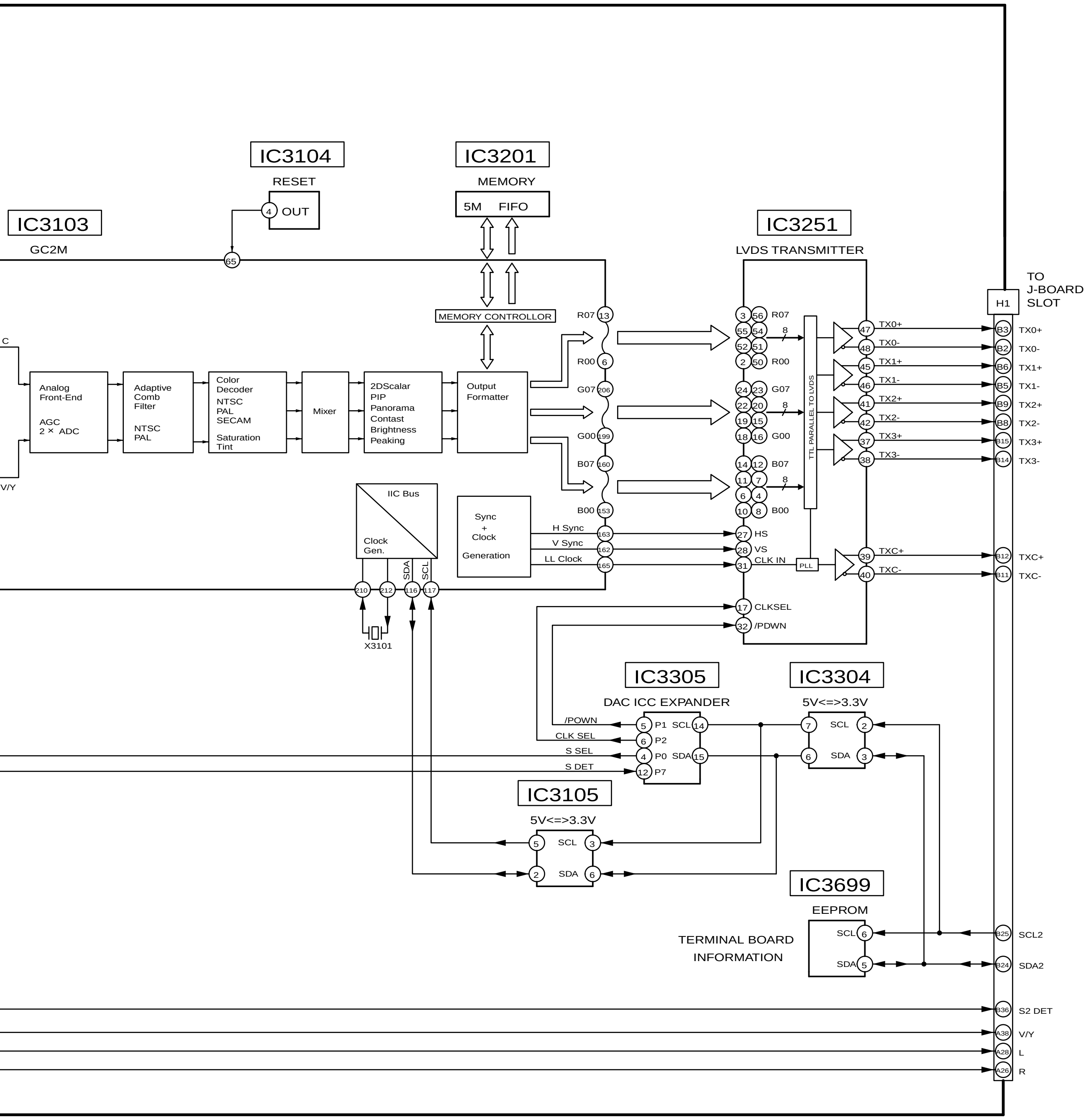
3

4


TO FAN
PB 35
PB 33
PB 31
3
2
1
0
0
7.2
R858 1.2k
R856 1.2k
R854 1.2k
D854 MA2C165001VT
D852 MA2C165001VT
D850 MA2C165001VT
PB
15.0
0
0
5.0
6.6
IC850
C0DAAZG00014
FAN CONTROL REGULATOR
Vin
Vout
COM
Oadj
ON/OFF
1
2
3
4
5
C850 50V 0.1u
15V
TPFAN
C852 25V 470u
L851 68u
D859 B0JAME000091
C854 16V 470u
R862 7.5k
R863 910
JS852 T3A205016
R850 4.7k
R851 3.3k
R853 470
R852 47k
Q850 2SC3311ARA
!
PB-BOARD TNPA3655

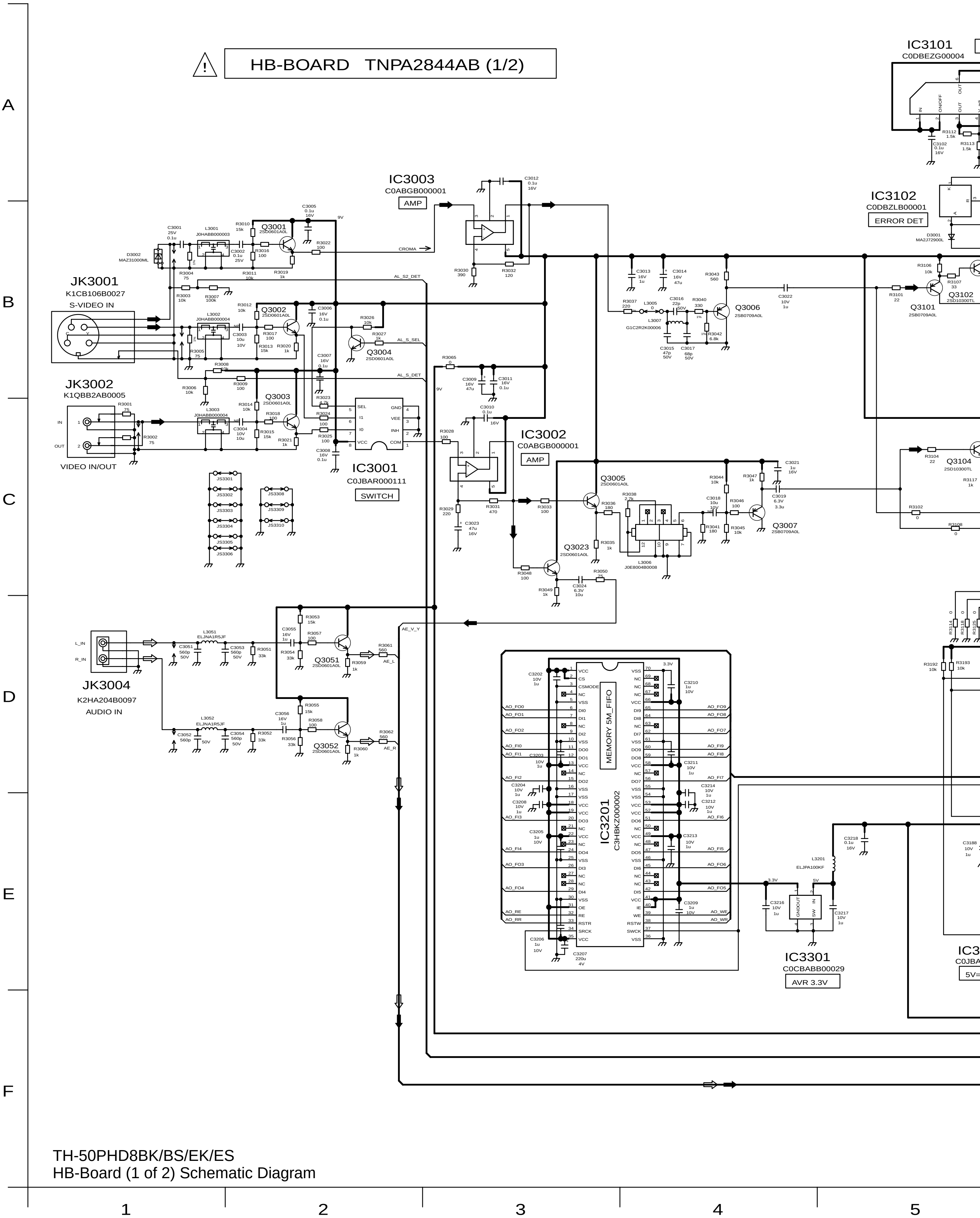
15.7. HB-Board Block Diagram


HB BNC COMPOSITE/S VIDEO
IC3103
GC2M
IC3003
AMP
IC3001
SWITCH
IC3002
AMP
JK3001
S-VIDEO IN
C
Y
Q3002
AMP
9V
Q3006
BUFFER
Q3101,3102
BUFFER
72
C
Analog
Front-End
AGC
2 × ADC
JK3002
VIDEO IN/OUT
VIDEO
IN
VIDEO
OUT
1
2
Q3003
AMP
9V
Q3005
AMP
L.P.F.
Q3007
BUFFER
Q3104
BUFFER
95
V/Y
Q3023
AMP
JK3004
AUDIO IN
L IN
R IN
Q3051
L AMP
Q3052
R AMP
Q3004
INV.
3
1
6
7
5

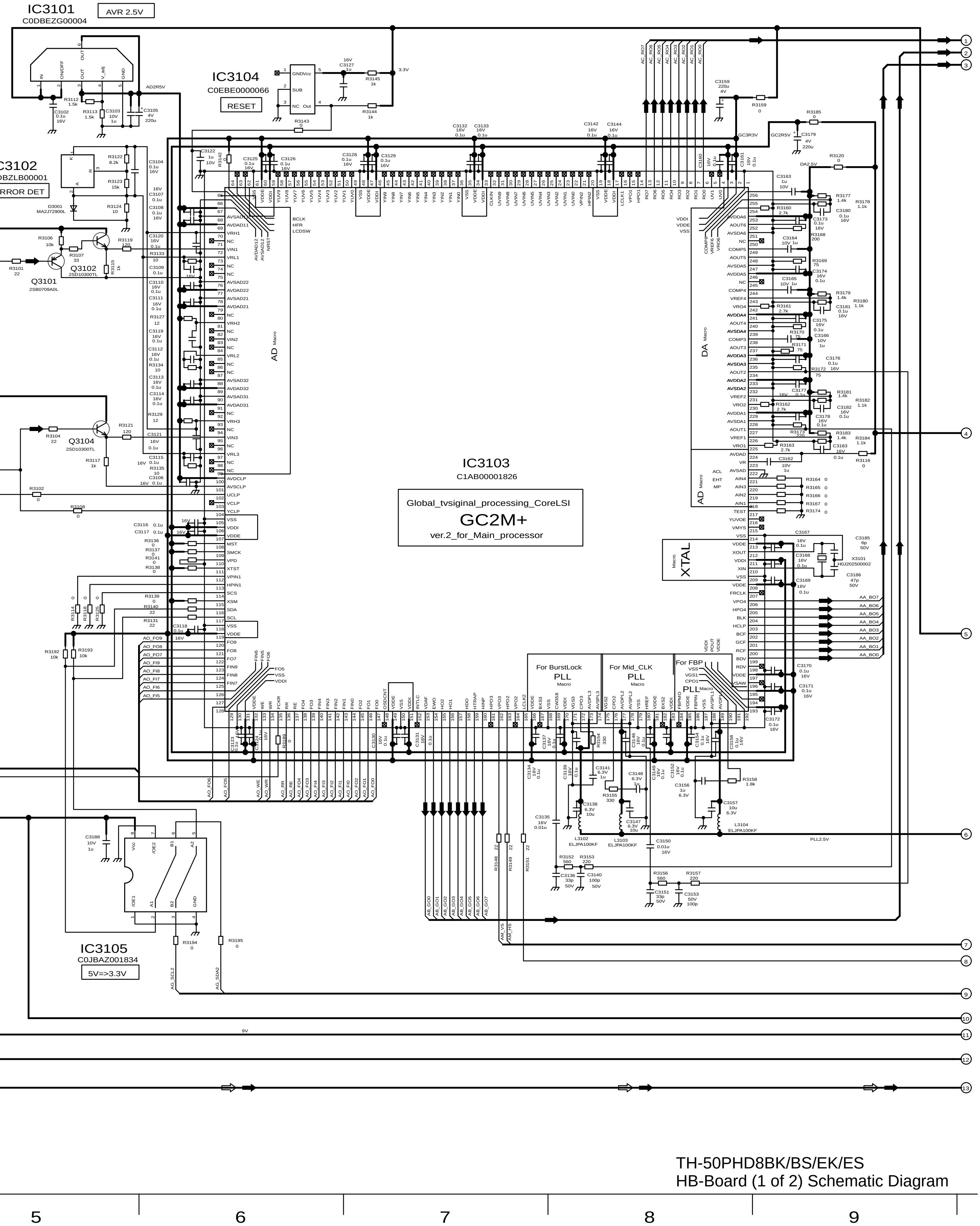

IC3104
RESET
4 OUT
IC3201
MEMORY
5M FIFO
IC3103
GC2M
65
MEMORY CONTROLLOR
C
V/Y
Analog
Front-End
AGC
2 × ADC
Adaptive
Comb
Filter
NTSC
PAL
Color
Decoder
NTSC
PAL
SECAM
Saturation
Tint
Mixer
2DScalar
PIP
Panorama
Contast
Brightness
Peaking
Output
Formatter
R07 13
R00 6
G07 206
G00 199
B07 160
B00 153
IIC Bus
Clock
Gen.
SDA
SCL
210
212
116
117
X3101
Sync
+
Clock
Generation
H Sync 163
V Sync 162
LL Clock 165
IC3251
LVDS TRANSMITTER
3 56 R07
55 54
52 51
2 50 R00
24 23 G07
22 20
19 15
18 16 G00
14 12 B07
11 7
6 4
10 8 B00
8
TTL PARALLEL TO LVDS
27 HS
28 VS
31 CLK IN
PLL
17 CLKSEL
32 /PDWN
47 TX0+
48 TX0-
45 TX1+
46 TX1-
41 TX2+
42 TX2-
37 TX3+
38 TX3-
39 TXC+
40 TXC-
TO
J-BOARD
SLOT
H1
B3 TX0+
B2 TX0-
B6 TX1+
B5 TX1-
B9 TX2+
B8 TX2-
B15 TX3+
B14 TX3-
B12 TXC+
B11 TXC-
IC3305
DAC ICC EXPANDER
/POWN 5 P1
CLK SEL 6 P2
S SEL 4 P0
S DET 12 P7
SCL 14
SDA 15
IC3304
5V<=>3.3V
7 SCL 2
6 SDA 3
IC3105
5V<=>3.3V
5 SCL 3
2 SDA 6
IC3699
EEPROM
SCL 6
SDA 5
TERMINAL BOARD
INFORMATION
B25 SCL2
B24 SDA2
B36 S2 DET
A38 V/Y
A28 L
A26 R

TH-50PHD8BK/BS/EK/ES
HB-Board Block Diagram

15.8. HB-Board (1 of 2) Schematic Diagram


A
B
C
D
E
F
1
2
3
4
5
HB-BOARD TNPA2844AB (1/2)
IC3101
C0DBEZG00004
IC3102
C0DBZLB00001
ERROR DET
D3001
MA2J72900L
IC3003
C0ABGB000001
AMP
IC3002
C0ABGB000001
AMP
IC3001
C0JBAR000111
SWITCH
SEL
GND
I1
VEE
I0
INH
VCC
COM
JK3001
K1CB106B0027
S-VIDEO IN
JK3002
K1QBB2AB0005
VIDEO IN/OUT
IN
OUT
JK3004
K2HA204B0097
AUDIO IN
L_IN
R_IN
Q3001
2SD0601A0L
Q3002
2SD0601A0L
Q3003
2SD0601A0L
Q3004
2SD0601A0L
Q3005
2SD0601A0L
Q3006
2SB0709A0L
Q3007
2SB0709A0L
Q3023
2SD0601A0L
Q3051
2SD0601A0L
Q3052
2SD0601A0L
Q3101
2SB0709A0L
Q3102
2SD10300TL
Q3104
2SD10300TL
D3002
MAZ31000ML
L3001
J0HABB000003
L3002
J0HABB000004
L3003
J0HABB000004
L3005
L3006
J0E8004B0008
L3007
G1C2R2K00006
L3051
ELJNA1R5JF
L3052
ELJNA1R5JF
L3201
ELJPA100KF
CROMA
AL_S2_DET
AL_S_SEL
AL_S_DET
AE_V_Y
AE_L
AE_R
9V
3.3V
5V
JS3301
JS3302
JS3303
JS3304
JS3305
JS3306
JS3308
JS3309
JS3310
IC3201
C3HBKZ000002
MEMORY 5M_FIFO
VCC
CS
CSMODE
NC
VSS
DI0
DI1
DI2
DO0
DO1
DO2
DO3
DO4
DI3
DI4
OE
RE
RSTR
SRCK
WE
RSTW
SWCK
IE
AO_FO0
AO_FO1
AO_FO2
AO_FI0
AO_FI1
AO_FI2
AO_FI3
AO_FI4
AO_FO3
AO_FO4
AO_RE
AO_RR
AO_FO9
AO_FO8
AO_FO7
AO_FI9
AO_FI8
AO_FI7
AO_FI6
AO_FI5
AO_FO6
AO_FO5
AO_WE
AO_WR
IC3301
C0CBABB00029
AVR 3.3V
IN
OUT
GND
SW
IC3
C0JBA
5V=

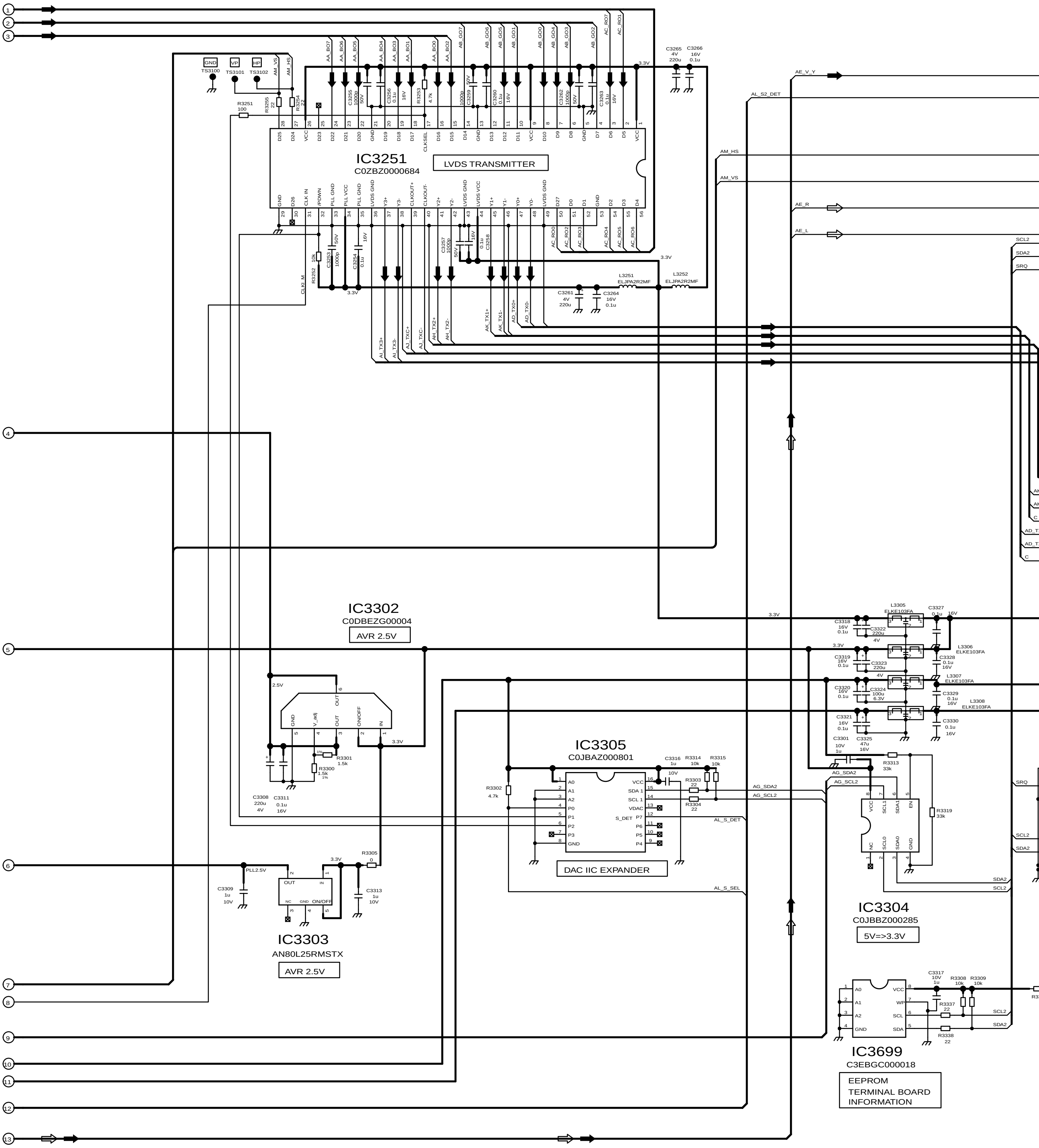
TH-50PHD8BK/BS/EK/ES
HB-Board (1 of 2) Schematic Diagram

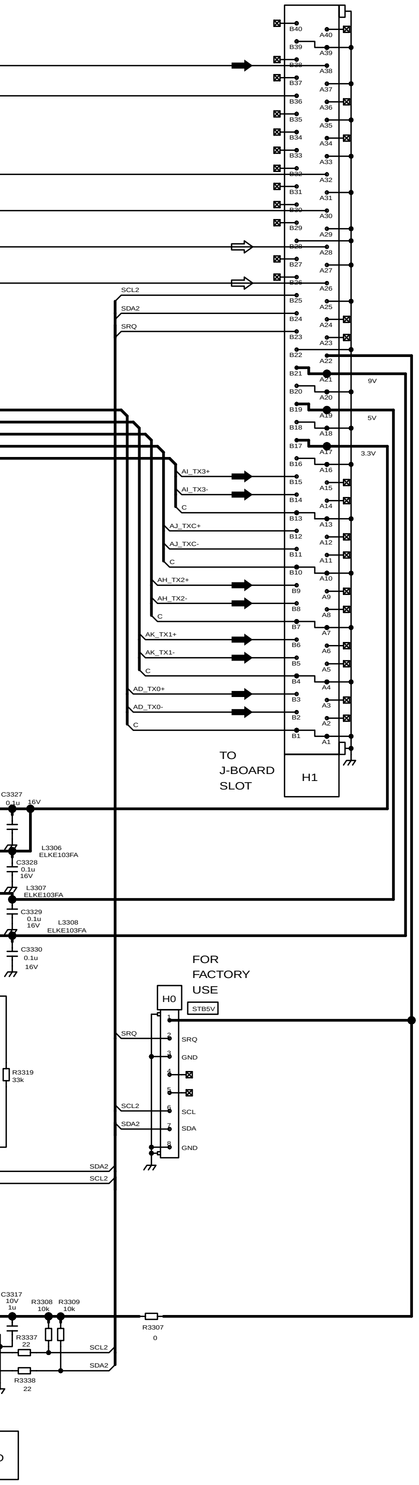

IC3101
C0DBEZG00004
AVR 2.5V
IN
ON/OFF
OUT
V_adj
GND
AD2R5V
IC3104
C0EBE0000066
RESET
GNDVcc
SUB
NC Out
3.3V
C3102
DBZLB00001
RROR DET
D3001
MA2J72900L
Q3101
2SB0709A0L
Q3102
2SD10300TL
Q3104
2SD10300TL
AD Macro
DA Macro
AD Macro
XTAL Macro
IC3103
C1AB00001826
Global_tvsiginal_processing_CoreLSI
GC2M+
ver.2_for_Main_processor
For BurstLock PLL Macro
For Mid_CLK PLL Macro
For FBP PLL Macro
X3101
H0J202500002
GC3R3V
GC2R5V
DA2.5V
PLL2.5V
L3102 ELJPA100KF
L3103 ELJPA100KF
L3104 ELJPA100KF
AA_BO7
AA_BO6
AA_BO5
AA_BO4
AA_BO3
AA_BO2
AA_BO1
AA_BO0
AB_GO0
AB_GO1
AB_GO2
AB_GO3
AB_GO4
AB_GO5
AB_GO6
AB_GO7
AM_VS
AM_HS
AO_FO9
AO_FO8
AO_FO7
AO_FI9
AO_FI8
AO_FI7
AO_FI6
AO_FI5
AC_RO7
AC_RO6
AC_RO5
AC_RO4
AC_RO3
AC_RO2
AC_RO1
AC_RO0
IC3105
C0JBAZ001834
5V=>3.3V
Vcc
/OE2
B1
A2
/OE1
A1
B2
GND
AG_SCL2
AG_SDA2
9V
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
5
6
7
8
9

TH-50PHD8BK/BS/EK/ES
HB-Board (1 of 2) Schematic Diagram

15.9. HB-Board (2 of 2) Schematic Diagram

HB-BOARD TNPA2844AB (2/2)

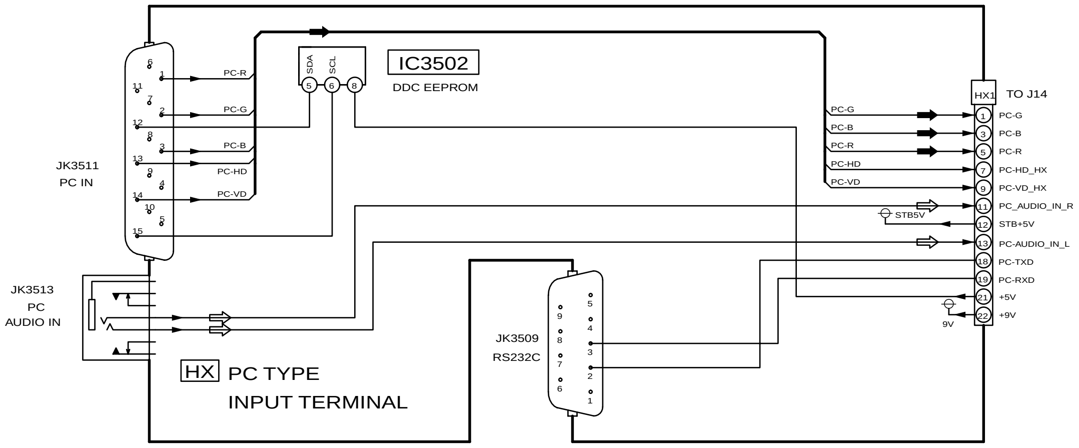

IC3251
C0ZBZ0000684
LVDS TRANSMITTER
IC3302
C0DBEZG00004
AVR 2.5V
IC3303
AN80L25RMSTX
AVR 2.5V
IC3305
C0JBAZ000801
DAC IIC EXPANDER
IC3304
C0JBBZ000285
5V=>3.3V
IC3699
C3EBGC000018
EEPROM
TERMINAL BOARD
INFORMATION
TS3100
TS3101
TS3102
GND
VP
HP
AM_VS
AM_HS
AE_V_Y
AL_S2_DET
AE_R
AE_L
SCL2
SDA2
SRQ
AG_SDA2
AG_SCL2
AL_S_DET
AL_S_SEL
CLKI_M
AI_TX3+
AI_TX3-
AJ_TXC+
AJ_TXC-
AH_TX2+
AH_TX2-
AK_TX1+
AK_TX1-
AD_TX0+
AD_TX0-
AA_BO7
AA_BO6
AA_BO5
AA_BO4
AA_BO3
AA_BO1
AA_BO0
AA_BO2
AB_GO7
AB_GO6
AB_GO5
AB_GO1
AB_GO0
AB_GO4
AB_GO3
AB_GO2
AC_RO7
AC_RO1
AC_RO0
AC_RO2
AC_RO3
AC_RO4
AC_RO5
AC_RO6
L3251
ELJPA2R2MF
L3252
ELJPA2R2MF
L3305
L3306
L3307
L3308
ELKE103FA
C3265
C3266
C3261
C3264
R3251
R3252
R3254
R3255
R3253
C3255
C3256
C3257
C3258
C3259
C3260
C3262
C3263
C3253
C3254
R3300
R3301
R3302
R3303
R3304
R3305
R3313
R3314
R3315
R3319
R3308
R3309
R3337
R3338
C3301
C3308
C3309
C3311
C3313
C3316
C3317
C3318
C3319
C3320
C3321
C3322
C3323
C3324
C3325
C3327
C3328
C3329
C3330
3.3V
2.5V
PLL2.5V
1
2
3
4
5
6
7
8
9
10
11
12
13

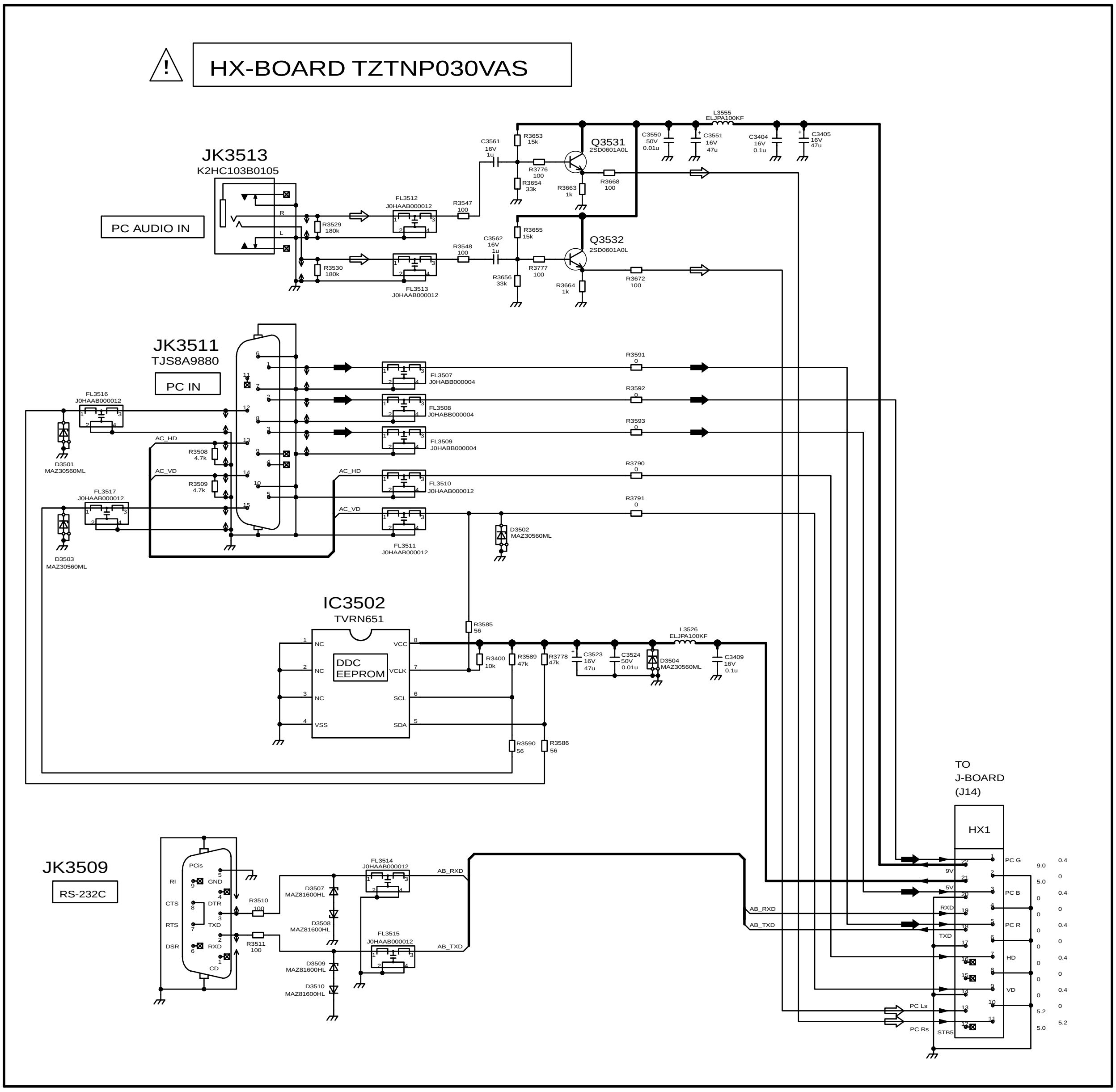


B40
A40
B39
A39
B38
A38
B37
A37
B36
A36
B35
A35
B34
A34
B33
A33
B32
A32
B31
A31
B30
A30
B29
A29
B28
A28
B27
A27
B26
A26
SCL2
B25
A25
SDA2
B24
A24
SRQ
B23
A23
B22
A22
B21
A21
9V
B20
A20
B19
A19
5V
B18
A18
B17
A17
3.3V
AI_TX3+
B16
A16
AI_TX3-
B15
A15
C
B14
A14
AJ_TXC+
B13
A13
AJ_TXC-
B12
A12
C
B11
A11
AH_TX2+
B10
A10
AH_TX2-
B9
A9
C
B8
A8
AK_TX1+
B7
A7
AK_TX1-
B6
A6
C
B5
A5
AD_TX0+
B4
A4
AD_TX0-
B3
A3
C
B2
A2
B1
A1
TO
J-BOARD
SLOT
H1
C3327
0.1u
16V
L3306
ELKE103FA
C3328
0.1u
16V
L3307
ELKE103FA
C3329
0.1u
16V
L3308
ELKE103FA
C3330
0.1u
16V
FOR
FACTORY
USE
H0
STB5V
SRQ
SRQ
GND
SCL2
SCL
SDA2
SDA
GND
R3319
33k
SDA2
SCL2
C3317
10V
1u
R3308
10k
R3309
10k
R3307
0
R3337
22
SCL2
SDA2
R3338
22

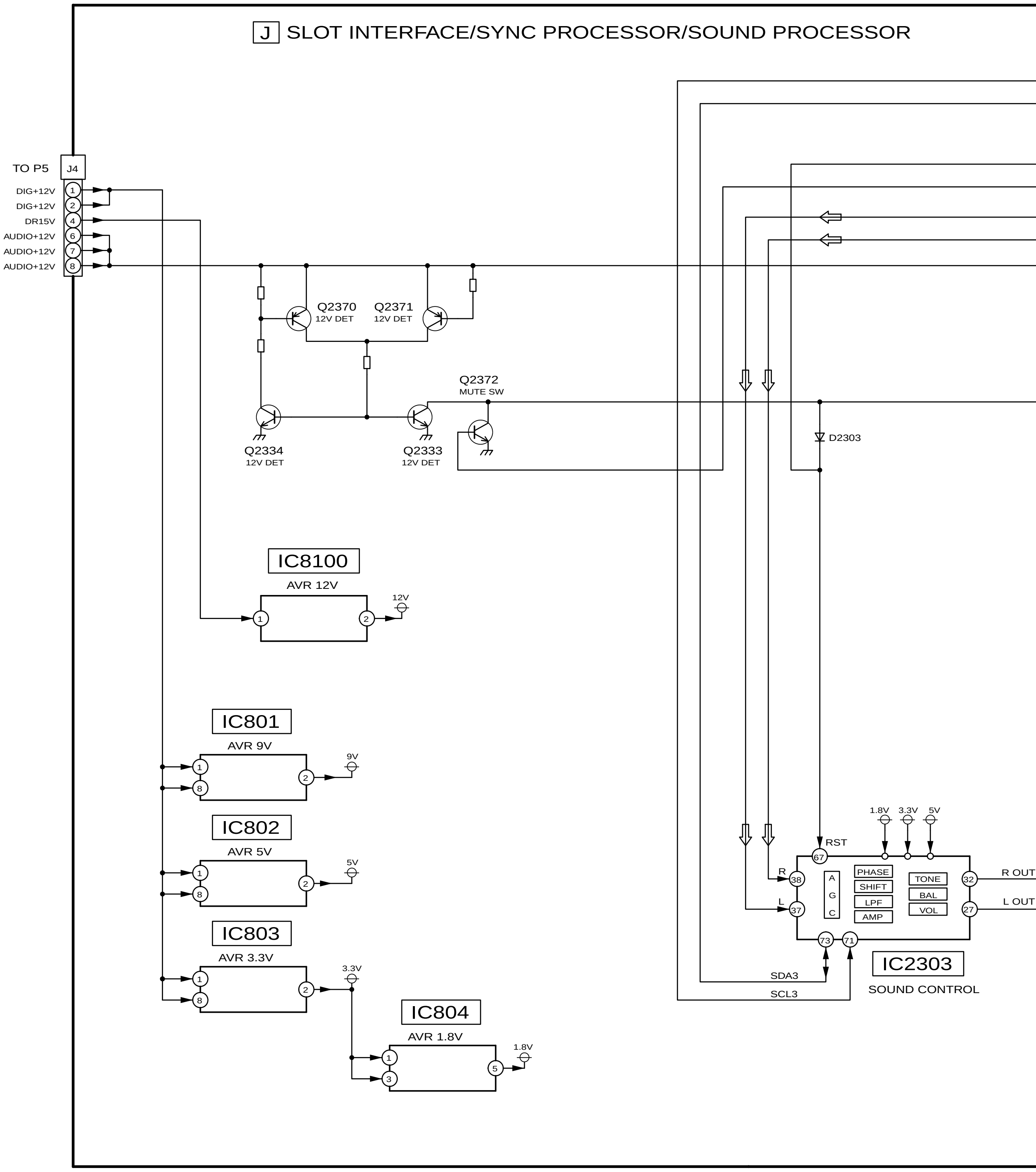
TH-50PHD8BK/BS/EK/ES
HB-Board (2 of 2) Schematic Diagram

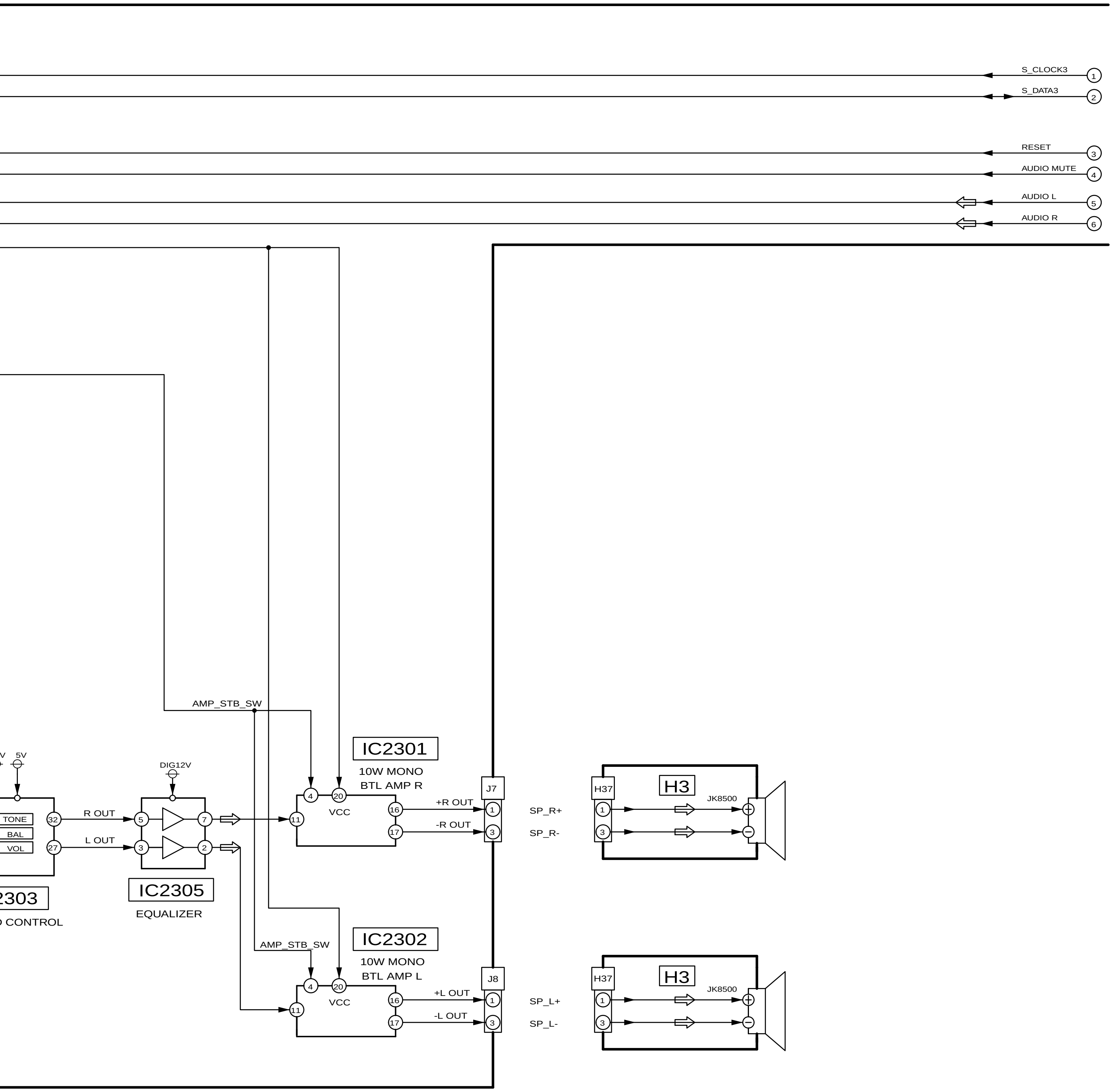
15.10. HX-Board Block and Schematic Diagram


IC3502
DDC EEPROM
SDA
SCL
5
6
8
JK3511
PC IN
6
1
11
7
2
12
8
3
13
9
4
14
10
5
15
PC-R
PC-G
PC-B
PC-HD
PC-VD
JK3513
PC
AUDIO IN
HX
PC TYPE
INPUT TERMINAL
JK3509
RS232C
5
9
4
8
3
7
2
6
1
HX1
TO J14
PC-G
PC-B
PC-R
PC-HD
PC-VD
STB5V
9V
1 PC-G
3 PC-B
5 PC-R
7 PC-HD_HX
9 PC-VD_HX
11 PC_AUDIO_IN_R
12 STB+5V
13 PC-AUDIO_IN_L
18 PC-TXD
19 PC-RXD
21 +5V
22 +9V


HX-BOARD TZTNP030VAS
JK3513
K2HC103B0105
PC AUDIO IN
R
L
R3529
180k
R3530
180k
FL3512
J0HAAB000012
FL3513
J0HAAB000012
R3547
100
R3548
100
C3561
16V
1u
C3562
16V
1u
R3653
15k
R3776
100
R3654
33k
R3663
1k
Q3531
2SD0601A0L
R3668
100
R3655
15k
R3777
100
R3656
33k
R3664
1k
Q3532
2SD0601A0L
R3672
100
C3550
50V
0.01u
C3551
16V
47u
L3555
ELJPA100KF
C3404
16V
0.1u
C3405
16V
47u
JK3511
TJS8A9880
PC IN
FL3516
J0HAAB000012
D3501
MAZ30560ML
FL3517
J0HAAB000012
D3503
MAZ30560ML
AC_HD
AC_VD
R3508
4.7k
R3509
4.7k
FL3507
J0HABB000004
FL3508
J0HABB000004
FL3509
J0HABB000004
FL3510
J0HAAB000012
FL3511
J0HAAB000012
D3502
MAZ30560ML
R3591
0
R3592
0
R3593
0
R3790
0
R3791
0
IC3502
TVRN651
NC
NC
NC
VSS
VCC
VCLK
SCL
SDA
DDC
EEPROM
R3585
56
R3400
10k
R3589
47k
R3778
47k
C3523
16V
47u
C3524
50V
0.01u
D3504
MAZ30560ML
L3526
ELJPA100KF
C3409
16V
0.1u
R3590
56
R3586
56
JK3509
RS-232C
PCis
RI
CTS
RTS
DSR
GND
DTR
TXD
RXD
CD
R3510
100
R3511
100
D3507
MAZ81600HL
D3508
MAZ81600HL
D3509
MAZ81600HL
D3510
MAZ81600HL
FL3514
J0HAAB000012
FL3515
J0HAAB000012
AB_RXD
AB_TXD
TO
J-BOARD
(J14)
HX1
PC G
PC B
PC R
HD
VD
9V
5V
RXD
TXD
PC Ls
PC Rs
STB5
9.0
5.0
5.2
0.4

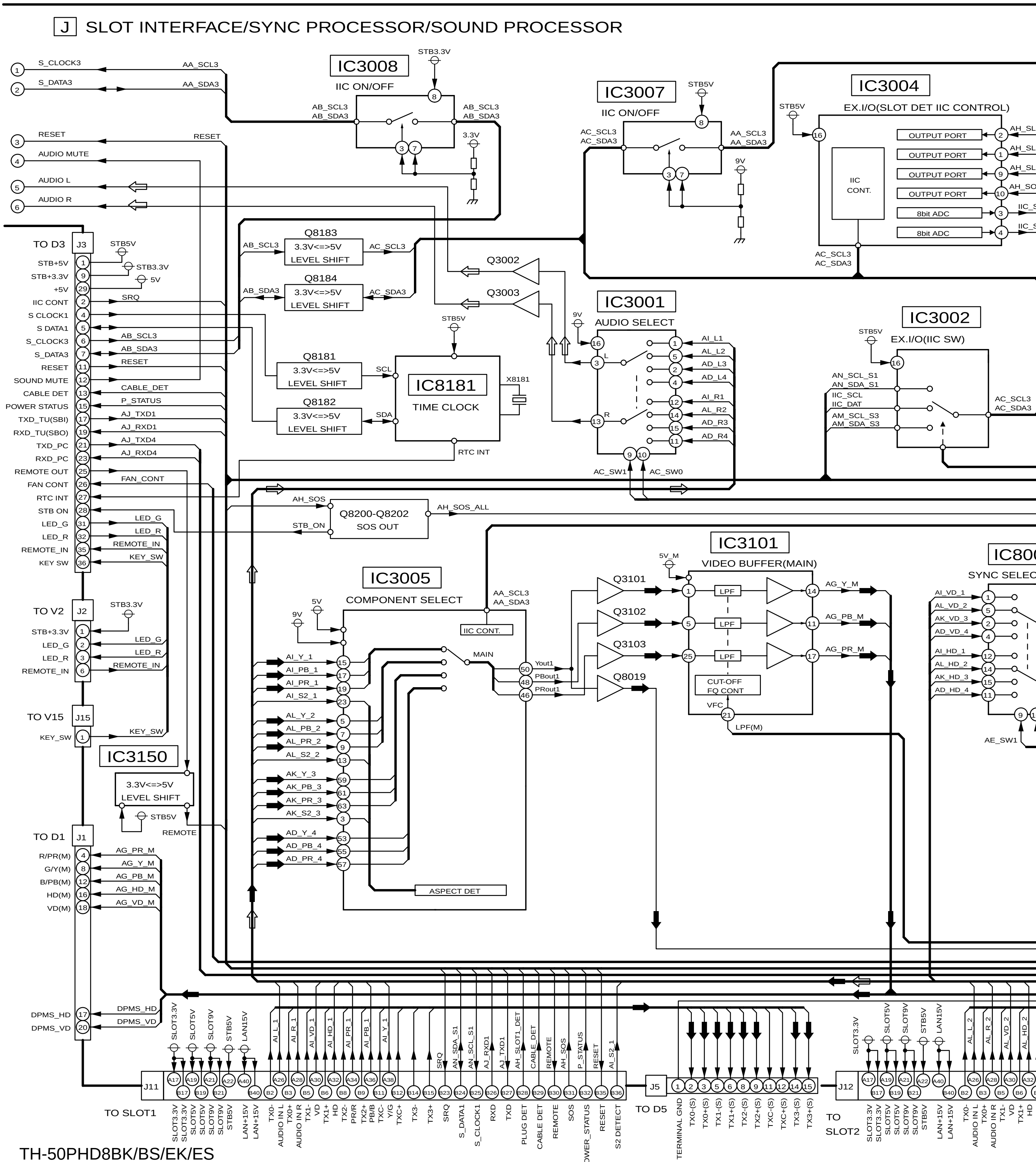
15.11. J-Board (1 of 2) and H3-Board Block Diagram

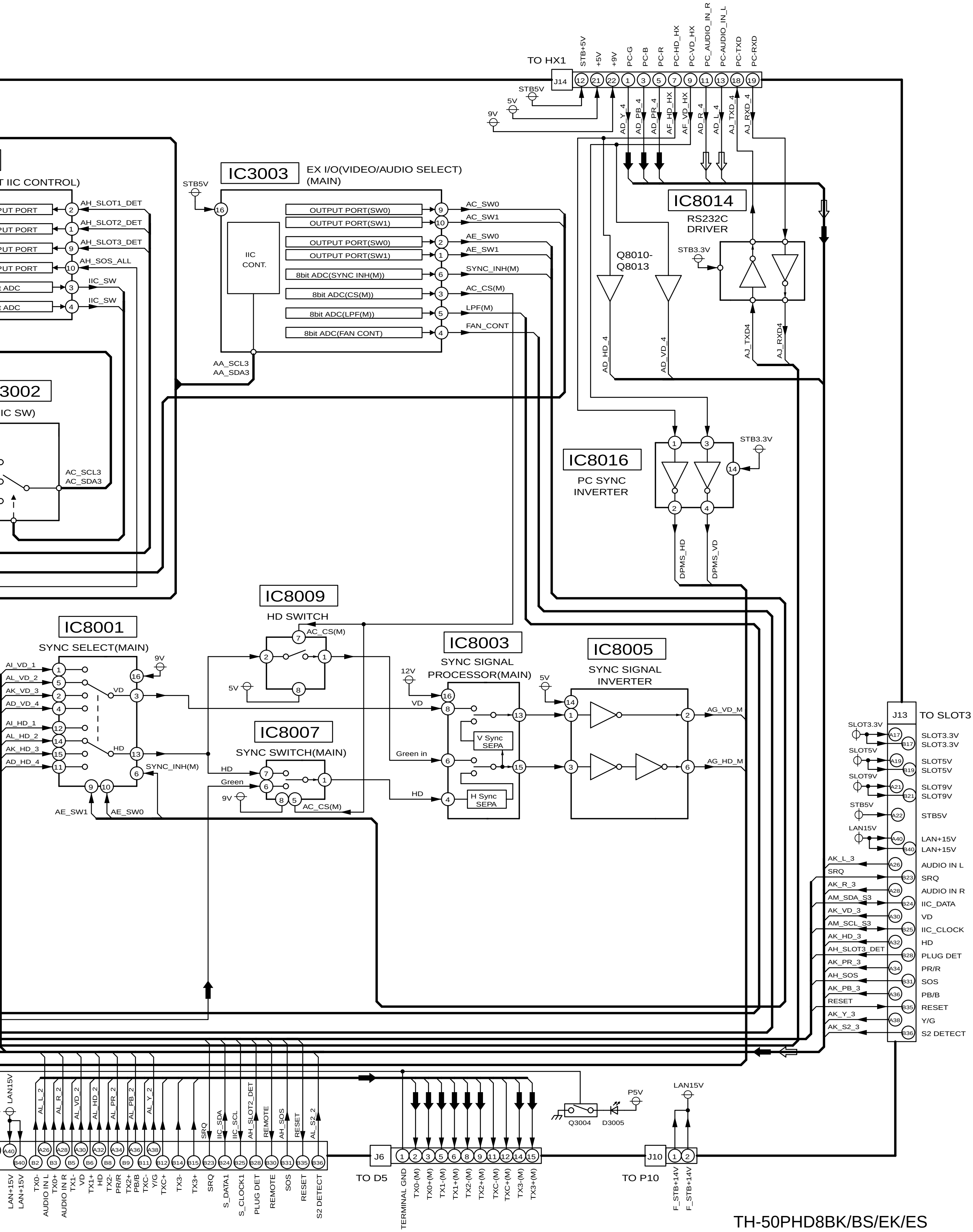

J
SLOT INTERFACE/SYNC PROCESSOR/SOUND PROCESSOR
TO P5
J4
DIG+12V
DIG+12V
DR15V
AUDIO+12V
AUDIO+12V
AUDIO+12V
1
2
4
6
7
8
Q2370
12V DET
Q2371
12V DET
Q2372
MUTE SW
Q2334
12V DET
Q2333
12V DET
D2303
IC8100
AVR 12V
12V
IC801
AVR 9V
9V
IC802
AVR 5V
5V
IC803
AVR 3.3V
3.3V
IC804
AVR 1.8V
1.8V
1.8V
3.3V
5V
RST
67
R
38
L
37
A
G
C
PHASE
SHIFT
LPF
AMP
TONE
BAL
VOL
32
27
R OUT
L OUT
73
71
SDA3
SCL3
IC2303
SOUND CONTROL


S_CLOCK3
1
S_DATA3
2
RESET
3
AUDIO MUTE
4
AUDIO L
5
AUDIO R
6
AMP_STB_SW
IC2301
10W MONO
BTL AMP R
4
20
VCC
11
16
17
+R OUT
-R OUT
J7
1
3
SP_R+
SP_R-
H37
1
3
H3
JK8500
5V
DIG12V
TONE
BAL
VOL
32
27
R OUT
L OUT
5
3
7
2
2303
CONTROL
IC2305
EQUALIZER
AMP_STB_SW
IC2302
10W MONO
BTL AMP L
4
20
VCC
11
16
17
+L OUT
-L OUT
J8
1
3
SP_L+
SP_L-
H37
1
3
H3
JK8500

TH-50PHD8BK/BS/EK/ES
J-Board (1 of 2) and H3-Board Block Diagram

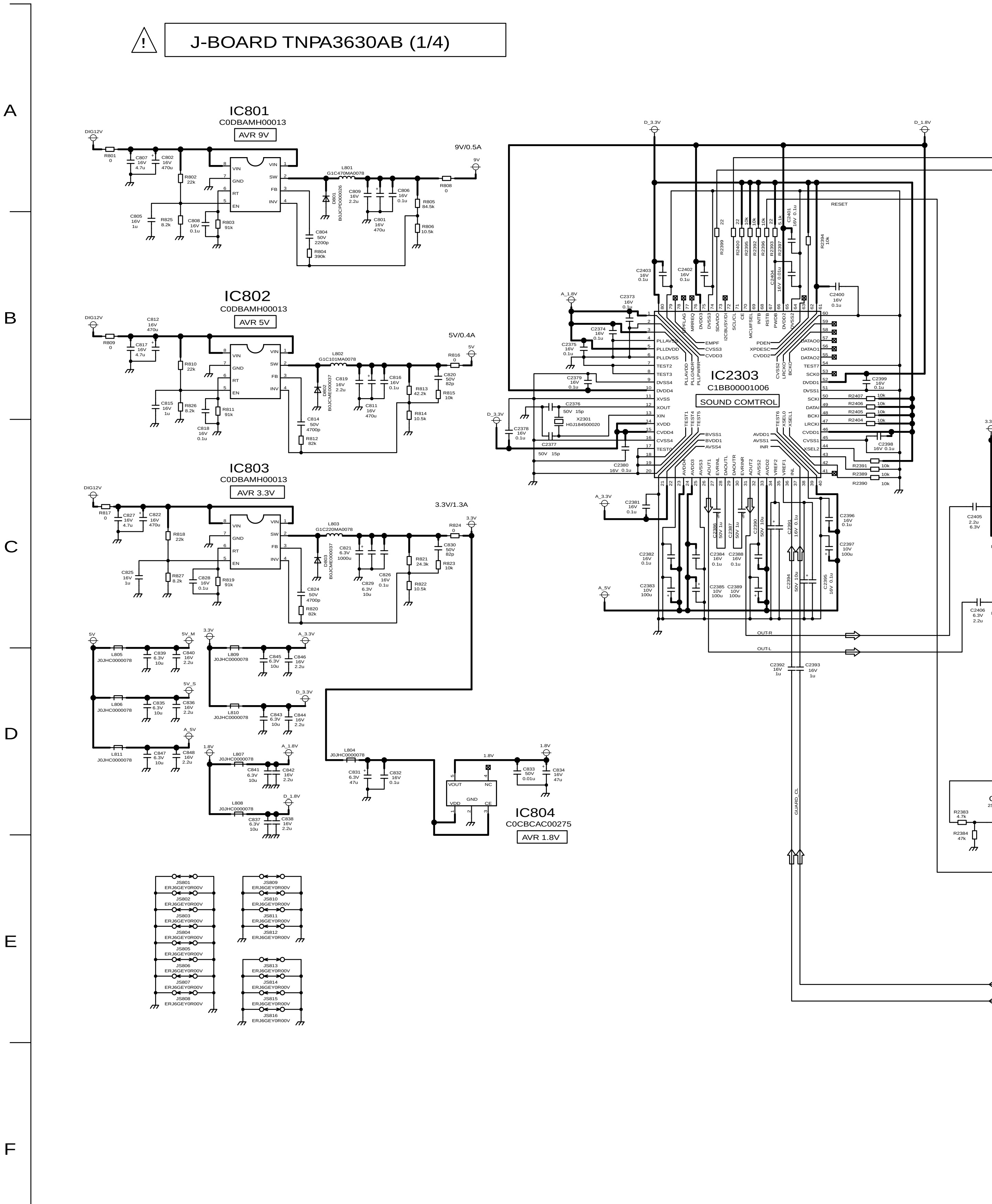
15.12. J-Board (2 of 2) Block Diagram


J
SLOT INTERFACE/SYNC PROCESSOR/SOUND PROCESSOR
IC3008
IIC ON/OFF
STB3.3V
AB_SCL3
AB_SDA3
3.3V
IC3007
IIC ON/OFF
STB5V
AC_SCL3
AC_SDA3
AA_SCL3
AA_SDA3
9V
IC3004
EX.I/O(SLOT DET IIC CONTROL)
IIC CONT.
OUTPUT PORT
OUTPUT PORT
OUTPUT PORT
OUTPUT PORT
8bit ADC
8bit ADC
S_CLOCK3
S_DATA3
RESET
AUDIO MUTE
AUDIO L
AUDIO R
TO D3
J3
STB5V
STB3.3V
5V
STB+5V
STB+3.3V
+5V
IIC CONT
S CLOCK1
S DATA1
S_CLOCK3
S_DATA3
RESET
SOUND MUTE
CABLE DET
POWER STATUS
TXD_TU(SBI)
RXD_TU(SBO)
TXD_PC
RXD_PC
REMOTE OUT
FAN CONT
RTC INT
STB ON
LED_G
LED_R
REMOTE_IN
KEY SW
SRQ
CABLE_DET
P_STATUS
AJ_TXD1
AJ_RXD1
AJ_TXD4
AJ_RXD4
FAN_CONT
Q8183
3.3V<=>5V
LEVEL SHIFT
Q8184
Q8181
Q8182
SCL
SDA
IC8181
TIME CLOCK
X8181
RTC INT
Q3002
Q3003
IC3001
AUDIO SELECT
AI_L1
AL_L2
AD_L3
AD_L4
AI_R1
AL_R2
AD_R3
AD_R4
AC_SW1
AC_SW0
IC3002
EX.I/O(IIC SW)
AN_SCL_S1
AN_SDA_S1
IIC_SCL
IIC_DAT
AM_SCL_S3
AM_SDA_S3
AH_SOS
STB_ON
Q8200-Q8202
SOS OUT
AH_SOS_ALL
IC3101
VIDEO BUFFER(MAIN)
5V_M
Q3101
Q3102
Q3103
Q8019
LPF
CUT-OFF
FQ CONT
VFC
LPF(M)
AG_Y_M
AG_PB_M
AG_PR_M
IC3005
COMPONENT SELECT
IIC CONT.
MAIN
Yout1
PBout1
PRout1
AI_Y_1
AI_PB_1
AI_PR_1
AI_S2_1
AL_Y_2
AL_PB_2
AL_PR_2
AL_S2_2
AK_Y_3
AK_PB_3
AK_PR_3
AK_S2_3
AD_Y_4
AD_PB_4
AD_PR_4
ASPECT DET
SYNC SELEC
AI_VD_1
AL_VD_2
AK_VD_3
AD_VD_4
AI_HD_1
AL_HD_2
AK_HD_3
AD_HD_4
AE_SW1
TO V2
J2
STB3.3V
STB+3.3V
LED_G
LED_R
REMOTE_IN
TO V15
J15
KEY_SW
IC3150
3.3V<=>5V
LEVEL SHIFT
STB5V
REMOTE
TO D1
J1
R/PR(M)
G/Y(M)
B/PB(M)
HD(M)
VD(M)
AG_PR_M
AG_Y_M
AG_PB_M
AG_HD_M
AG_VD_M
DPMS_HD
DPMS_VD
J11
TO SLOT1
SLOT3.3V
SLOT5V
SLOT9V
STB5V
LAN15V
AI_L_1
AI_R_1
AI_VD_1
AI_HD_1
AI_PR_1
AI_PB_1
AI_Y_1
SRQ
AN_SDA_S1
AN_SCL_S1
AJ_RXD1
AJ_TXD1
AH_SLOT1_DET
CABLE_DET
REMOTE
AH_SOS
P_STATUS
RESET
AI_S2_1
SLOT3.3V
SLOT3.3V
SLOT5V
SLOT5V
SLOT9V
SLOT9V
STB5V
LAN+15V
LAN+15V
TX0-
AUDIO IN L
TX0+
AUDIO IN R
TX1-
VD
TX1+
HD
TX2-
PR/R
TX2+
PB/B
TXC-
Y/G
TXC+
TX3-
TX3+
SRQ
S_DATA1
S_CLOCK1
RXD
TXD
PLUG DET
CABLE DET
REMOTE
SOS
POWER_STATUS
RESET
S2 DETECT
J5
TO D5
TERMINAL GND
TX0-(S)
TX0+(S)
TX1-(S)
TX1+(S)
TX2-(S)
TX2+(S)
TXC-(S)
TXC+(S)
TX3-(S)
TX3+(S)
J12
TO SLOT2
AL_L_2
AL_R_2
AL_VD_2
AL_HD_2


TO HX1
J14
STB+5V
+5V
+9V
PC-G
PC-B
PC-R
PC-HD_HX
PC-VD_HX
PC_AUDIO_IN_R
PC-AUDIO_IN_L
PC-TXD
PC-RXD
STB5V
5V
9V
AD_Y_4
AD_PB_4
AD_PR_4
AF_HD_HX
AF_VD_HX
AD_R_4
AD_L_4
AJ_TXD_4
AJ_RXD_4
IC3003
EX I/O(VIDEO/AUDIO SELECT) (MAIN)
IIC CONT.
OUTPUT PORT(SW0)
OUTPUT PORT(SW1)
8bit ADC(SYNC INH(M))
8bit ADC(CS(M))
8bit ADC(LPF(M))
8bit ADC(FAN CONT)
AC_SW0
AC_SW1
AE_SW0
AE_SW1
SYNC_INH(M)
AC_CS(M)
LPF(M)
FAN_CONT
AA_SCL3
AA_SDA3
IIC CONTROL)
AH_SLOT1_DET
AH_SLOT2_DET
AH_SLOT3_DET
AH_SOS_ALL
IIC_SW
UT PORT
ADC
3002
IC SW)
AC_SCL3
AC_SDA3
IC8014
RS232C DRIVER
STB3.3V
Q8010-Q8013
AD_HD_4
AD_VD_4
AJ_TXD4
AJ_RXD4
IC8016
PC SYNC INVERTER
DPMS_HD
DPMS_VD
IC8009
HD SWITCH
IC8001
SYNC SELECT(MAIN)
AI_VD_1
AL_VD_2
AK_VD_3
AD_VD_4
AI_HD_1
AL_HD_2
AK_HD_3
AD_HD_4
VD
HD
SYNC_INH(M)
AE_SW1
AE_SW0
IC8007
SYNC SWITCH(MAIN)
Green
12V
IC8003
SYNC SIGNAL PROCESSOR(MAIN)
Green in
V Sync SEPA
H Sync SEPA
IC8005
SYNC SIGNAL INVERTER
AG_VD_M
AG_HD_M
J13
TO SLOT3
SLOT3.3V
SLOT5V
SLOT9V
LAN15V
LAN+15V
AK_L_3
SRQ
AK_R_3
AM_SDA_S3
AK_VD_3
AM_SCL_S3
AK_HD_3
AH_SLOT3_DET
AK_PR_3
AH_SOS
AK_PB_3
RESET
AK_Y_3
AK_S2_3
AUDIO IN L
AUDIO IN R
IIC_DATA
IIC_CLOCK
PLUG DET
PR/R
SOS
PB/B
Y/G
S2 DETECT
AL_L_2
AL_R_2
AL_VD_2
AL_HD_2
AL_PR_2
AL_PB_2
AL_Y_2
IIC_SDA
IIC_SCL
AH_SLOT2_DET
REMOTE
AH_SOS
AL_S2_2
TX0-
TX0+
TX1-
TX1+
TX2-
TX2+
TXC-
TXC+
TX3-
TX3+
S_DATA1
S_CLOCK1
S2 DETECT
J6
TO D5
TERMINAL GND
TX0-(M)
TX0+(M)
TX1-(M)
TX1+(M)
TX2-(M)
TX2+(M)
TXC-(M)
TXC+(M)
TX3-(M)
TX3+(M)
Q3004
D3005
P5V
J10
TO P10
F_STB+14V

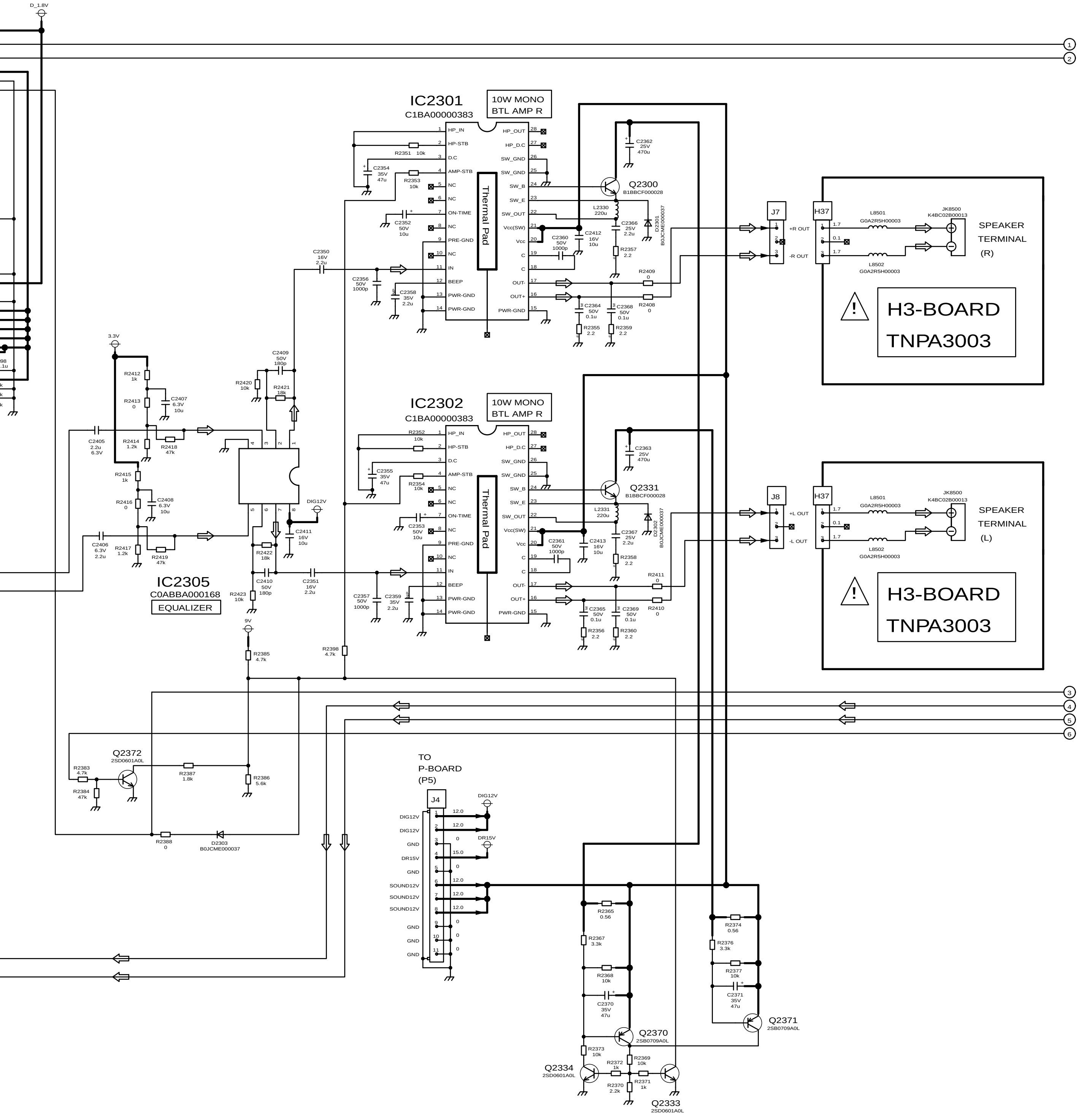
TH-50PHD8BK/BS/EK/ES
J-Board (2 of 2) Block Diagram

15.13. J-Board (1 of 4) and H3-Board Schematic Diagram


J-BOARD TNPA3630AB (1/4)
A
B
C
D
E
F
IC801
C0DBAMH00013
AVR 9V
9V/0.5A
9V
DIG12V
L801
G1C470MA0078
IC802
C0DBAMH00013
AVR 5V
5V/0.4A
5V
L802
G1C101MA0078
IC803
C0DBAMH00013
AVR 3.3V
3.3V/1.3A
3.3V
L803
G1C220MA0078
VIN
GND
RT
EN
SW
FB
INV
5V
5V_M
5V_S
A_5V
3.3V
D_3.3V
1.8V
A_1.8V
D_1.8V
L804
J0JHC0000078
IC804
C0CBCAC00275
AVR 1.8V
VOUT
NC
VDD
GND
CE
JS801
JS802
JS803
JS804
JS805
JS806
JS807
JS808
JS809
JS810
JS811
JS812
JS813
JS814
JS815
JS816
ERJ6GEY0R00V
IC2303
C1BB00001006
SOUND COMTROL
X2301
H0J184500020
RESET
OUT-R
OUT-L
GUARD_CL
D_3.3V
D_1.8V
A_3.3V
A_1.8V

TH-50PHD8BK/BS/EK/ES
J-Board (1 of 4) and H3-Board Schematic Diagram

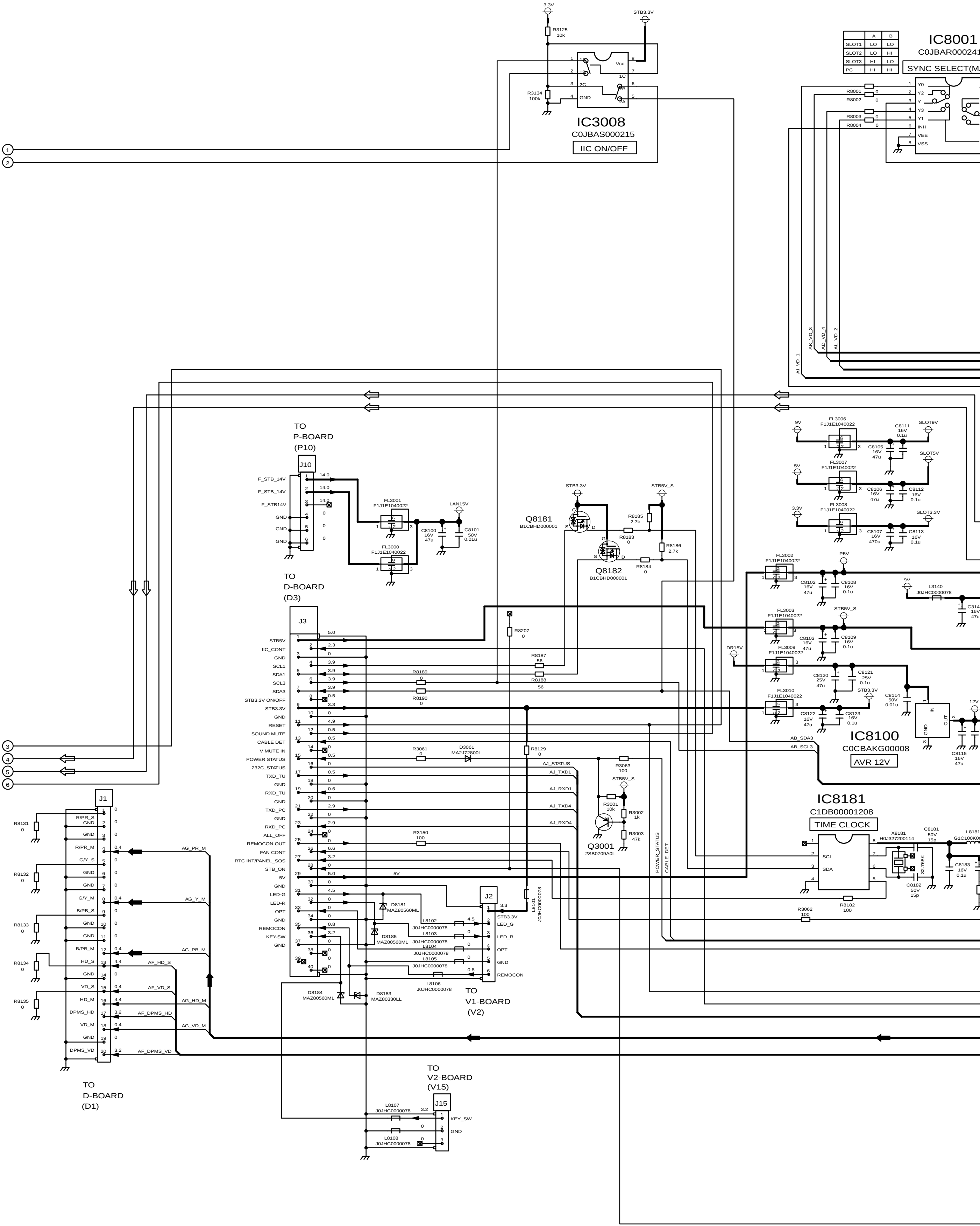
1 2 3 4 5


D_1.8V
IC2301
C1BA00000383
10W MONO
BTL AMP R
HP_IN
HP-STB
D.C
AMP-STB
NC
ON-TIME
PRE-GND
IN
BEEP
PWR-GND
HP_OUT
HP_D.C
SW_GND
SW_B
SW_E
SW_OUT
Vcc(SW)
Vcc
C
OUT-
OUT+
Thermal Pad
Q2300
B1BBCF000028
L2330
220u
C2362
25V
470u
C2366
25V
2.2u
D2301
B0JCME000037
R2357
2.2
R2409
0
R2408
0
C2364
50V
0.1u
C2368
50V
0.1u
R2355
2.2
R2359
2.2
C2360
50V
1000p
C2412
16V
10u
R2351 10k
C2354
35V
47u
R2353
10k
C2352
50V
10u
C2350
16V
2.2u
C2356
50V
1000p
C2358
35V
2.2u
J7
H37
+R OUT
-R OUT
1.7
0.1
L8501
G0A2R5H00003
L8502
G0A2R5H00003
JK8500
K4BC02B00013
SPEAKER
TERMINAL
(R)
H3-BOARD
TNPA3003
3.3V
R2412
1k
R2413
0
C2407
6.3V
10u
C2405
2.2u
6.3V
R2414
1.2k
R2418
47k
R2415
1k
R2416
0
C2408
6.3V
10u
C2406
6.3V
2.2u
R2417
1.2k
R2419
47k
C2409
50V
180p
R2420
10k
R2421
18k
DIG12V
C2411
16V
10u
R2422
18k
C2410
50V
180p
C2351
16V
2.2u
R2423
10k
IC2305
C0ABBA000168
EQUALIZER
IC2302
C1BA00000383
10W MONO
BTL AMP R
R2352
10k
C2355
35V
47u
R2354
10k
C2353
50V
10u
C2357
50V
1000p
C2359
35V
2.2u
Q2331
B1BBCF000028
L2331
220u
C2363
25V
470u
C2367
25V
2.2u
D2302
B0JCME000037
C2361
50V
1000p
C2413
16V
10u
R2358
2.2
R2411
0
R2410
0
C2365
50V
0.1u
C2369
50V
0.1u
R2356
2.2
R2360
2.2
J8
H37
+L OUT
-L OUT
SPEAKER
TERMINAL
(L)
H3-BOARD
TNPA3003
9V
R2385
4.7k
R2398
4.7k
Q2372
2SD0601A0L
R2383
4.7k
R2384
47k
R2387
1.8k
R2386
5.6k
R2388
0
D2303
B0JCME000037
TO
P-BOARD
(P5)
J4
DIG12V
DIG12V
GND
DR15V
GND
SOUND12V
SOUND12V
SOUND12V
GND
GND
GND
12.0
12.0
0
15.0
0
12.0
12.0
12.0
0
0
0
DR15V
R2365
0.56
R2367
3.3k
R2368
10k
C2370
35V
47u
Q2370
2SB0709A0L
R2373
10k
R2372
1k
R2369
10k
R2370
2.2k
R2371
1k
Q2334
2SD0601A0L
Q2333
2SD0601A0L
R2374
0.56
R2376
3.3k
R2377
10k
C2371
35V
47u
Q2371
2SB0709A0L
①
②
③
④
⑤
⑥

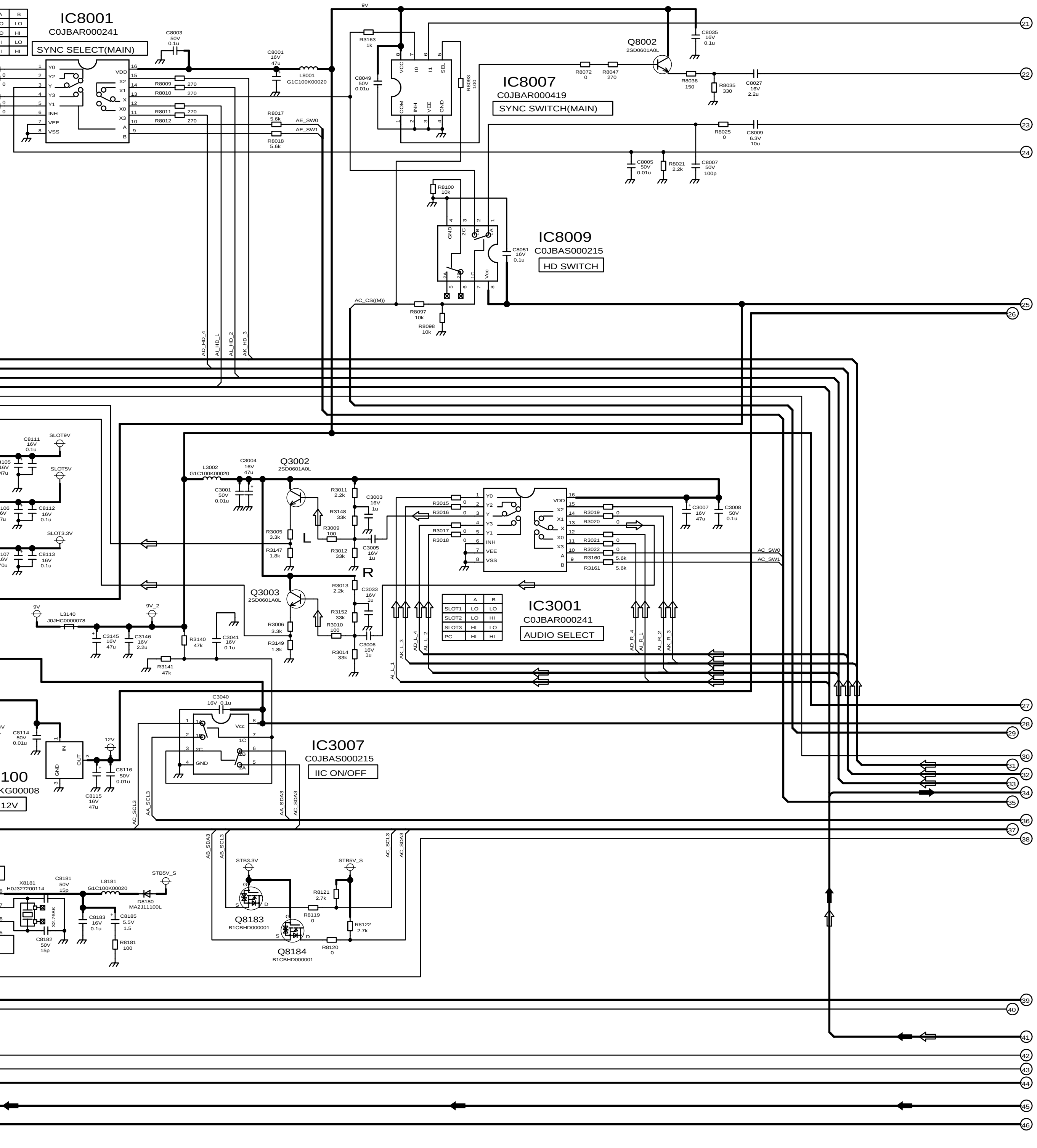
TH-50PHD8BK/BS/EK/ES
J-Board (1 of 4) and H3-Board Schematic Diagram

5 6 7 8 9

15.14. J-Board (2 of 4) Schematic Diagram



IC3008
C0JBAS000215
IIC ON/OFF
IC8001
C0JBAR000241
SYNC SELECT(M
IC8100
C0CBAKG00008
AVR 12V
IC8181
C1DB00001208
TIME CLOCK
Q8181
B1CBHD000001
Q8182
B1CBHD000001
Q3001
2SB0709A0L
TO
P-BOARD
(P10)
J10
TO
D-BOARD
(D3)
J3
TO
V1-BOARD
(V2)
J2
TO
V2-BOARD
(V15)
J15
TO
D-BOARD
(D1)
J1
3.3V
STB3.3V
STB5V_S
LAN15V
9V
5V
P5V
12V
DR15V
SLOT9V
SLOT5V
SLOT3.3V
F_STB_14V
F_STB14V
GND
STB5V
IIC_CONT
SCL1
SDA1
SCL3
SDA3
STB3.3V ON/OFF
RESET
SOUND MUTE
CABLE DET
V MUTE IN
POWER STATUS
232C_STATUS
TXD_TU
RXD_TU
TXD_PC
RXD_PC
ALL_OFF
REMOCON OUT
FAN CONT
RTC INT/PANEL_SOS
STB_ON
LED-G
LED-R
OPT
REMOCON
KEY-SW
KEY_SW
R/PR_S
R/PR_M
G/Y_S
G/Y_M
B/PB_S
B/PB_M
HD_S
VD_S
HD_M
DPMS_HD
VD_M
DPMS_VD
AG_PR_M
AG_Y_M
AG_PB_M
AF_HD_S
AF_VD_S
AG_HD_M
AF_DPMS_HD
AG_VD_M
AF_DPMS_VD
AJ_STATUS
AJ_TXD1
AJ_RXD1
AJ_TXD4
AJ_RXD4
AB_SDA3
AB_SCL3
POWER_STATUS
CABLE_DET
AI_VD_1
AK_VD_3
AD_VD_4
AL_VD_2
LED_G
LED_R
FL3000
FL3001
FL3002
FL3003
FL3006
FL3007
FL3008
FL3009
FL3010
F1J1E1040022
X8181
H0J327200114
32.768K
D3061
MA2J72800L
D8181
D8184
D8185
MAZ80560ML
D8183
MAZ80330LL
L8101
L8102
L8103
L8104
L8105
L8106
L8107
L8108
J0JHC0000078
L3140
L8181


IC8001
C0JBAR000241
SYNC SELECT(MAIN)
IC8007
C0JBAR000419
SYNC SWITCH(MAIN)
Q8002
2SD0601A0L
IC8009
C0JBAS000215
HD SWITCH
Q3002
2SD0601A0L
Q3003
2SD0601A0L
IC3001
C0JBAR000241
AUDIO SELECT
IC3007
C0JBAS000215
IIC ON/OFF
Q8183
B1CBHD000001
Q8184
B1CBHD000001
SLOT9V
SLOT5V
SLOT3.3V
STB3.3V
STB5V_S
9V
9V_2
12V
L
R
AC_CS((M))
AE_SW0
AE_SW1
AC_SW0
AC_SW1
AD_HD_4
AI_HD_1
AL_HD_2
AK_HD_3
AK_L_3
AI_L_2
AD_L_4
AI_L_1
AD_R_4
AI_R_1
AL_R_2
AK_R_3
AC_SCL3
AA_SCL3
AA_SDA3
AC_SDA3
AB_SDA3
AB_SCL3
SLOT1
SLOT2
SLOT3
PC
21
22
23
24
25
26
27
28
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32
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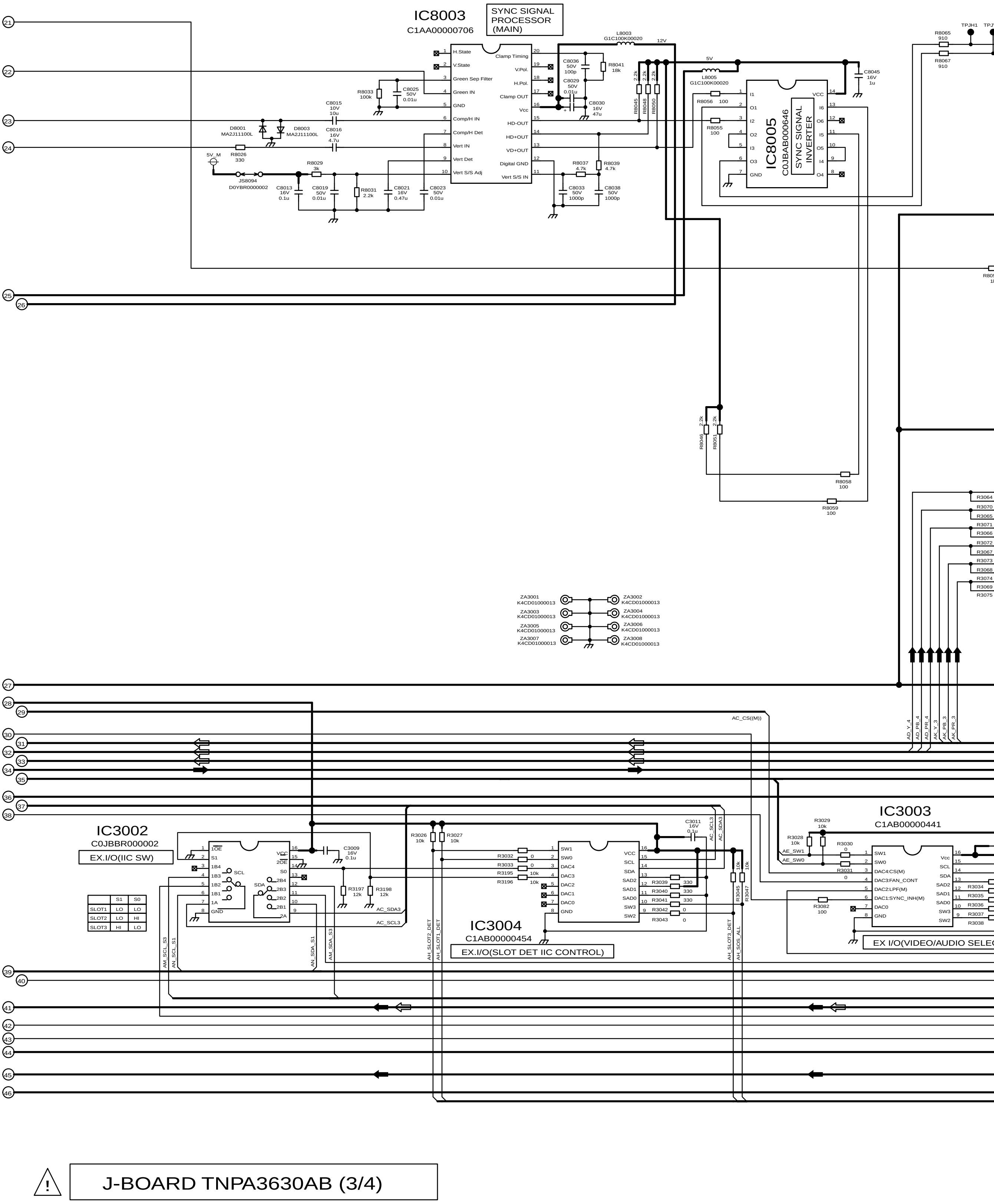
⚠ J-BOARD TNPA3630AB (2/4)

TH-50PHD8BK/BS/EK/ES
J-Board (2 of 4) Schematic Diagram

14	15	16	17	18

15.15. J-Board (3 of 4) Schematic Diagram


IC8003
C1AA00000706
SYNC SIGNAL PROCESSOR (MAIN)
H.State
V.State
Green Sep Filter
Green IN
GND
Comp/H IN
Comp/H Det
Vert IN
Vert Det
Vert S/S Adj
Clamp Timing
V.Pol.
H.Pol.
Clamp OUT
Vcc
HD-OUT
HD+OUT
VD+OUT
Digital GND
Vert S/S IN
L8003
G1C100K00020
12V
C8036 50V 100p
R8041 18k
C8029 50V 0.01u
C8030 16V 47u
R8045 2.2k
R8049 2.2k
R8050 2.2k
R8033 100k
C8025 50V 0.01u
C8015 10V 10u
D8001 MA2J11100L
D8003 MA2J11100L
C8016 16V 4.7u
5V_M
R8026 330
JS8094
D0YBR0000002
R8029 3k
C8013 16V 0.1u
C8019 50V 0.01u
R8031 2.2k
C8021 16V 0.47u
C8023 50V 0.01u
R8037 4.7k
R8039 4.7k
C8033 50V 1000p
C8038 50V 1000p
5V
L8005
G1C100K00020
R8056 100
R8055 100
C8045 16V 1u
IC8005
C0JBAB000646
SYNC SIGNAL INVERTER
I1
O1
I2
O2
I3
O3
GND
VCC
I6
O6
I5
O5
I4
O4
R8065 910
R8067 910
TPJH1
TPJ
R8046 2.2k
R8051 2.2k
R8058 100
R8059 100
R3064
R3070
R3065
R3071
R3066
R3072
R3067
R3073
R3068
R3074
R3069
R3075
ZA3001 K4CD01000013
ZA3002 K4CD01000013
ZA3003 K4CD01000013
ZA3004 K4CD01000013
ZA3005 K4CD01000013
ZA3006 K4CD01000013
ZA3007 K4CD01000013
ZA3008 K4CD01000013
AD_Y_4
AD_PB_4
AD_PR_4
AK_Y_3
AK_PB_3
AK_PR_3
AC_CS(M)
IC3002
C0JBBR000002
EX.I/O(IIC SW)
1OE
S1
1B4
1B3
1B2
1B1
1A
GND
VCC
2OE
S0
2B4
2B3
2B2
2B1
2A
SCL
SDA
C3009 16V 0.1u
R3197 12k
R3198 12k
AC_SDA3
AC_SCL3
S1
S0
SLOT1
SLOT2
SLOT3
LO
HI
AM_SCL_S3
AN_SCL_S1
AN_SDA_S1
AM_SDA_S3
R3026 10k
R3027 10k
R3032
R3033
R3195
R3196
0
10k
IC3004
C1AB00000454
EX.I/O(SLOT DET IIC CONTROL)
SW1
SW0
DAC4
DAC3
DAC2
DAC1
DAC0
GND
VCC
SCL
SDA
SAD2
SAD1
SAD0
SW3
SW2
R3039
R3040
R3041
R3042
R3043
330
C3011 16V 0.1u
AC_SCL3
AC_SDA3
AH_SLOT2_DET
AH_SLOT1_DET
AH_SLOT3_DET
AH_SOS_ALL
R3045 10k
R3047 10k
IC3003
C1AB00000441
R3029 10k
R3028 10k
R3030 0
R3031 0
AE_SW1
AE_SW0
R3082 100
SW1
SW0
DAC4:CS(M)
DAC3:FAN_CONT
DAC2:LPF(M)
DAC1:SYNC_INH(M)
DAC0
GND
Vcc
SCL
SDA
SAD2
SAD1
SAD0
SW3
SW2
R3034
R3035
R3036
R3037
R3038
EX I/O(VIDEO/AUDIO SELE
21
22
23
24
25
26
27
28
29
30
31
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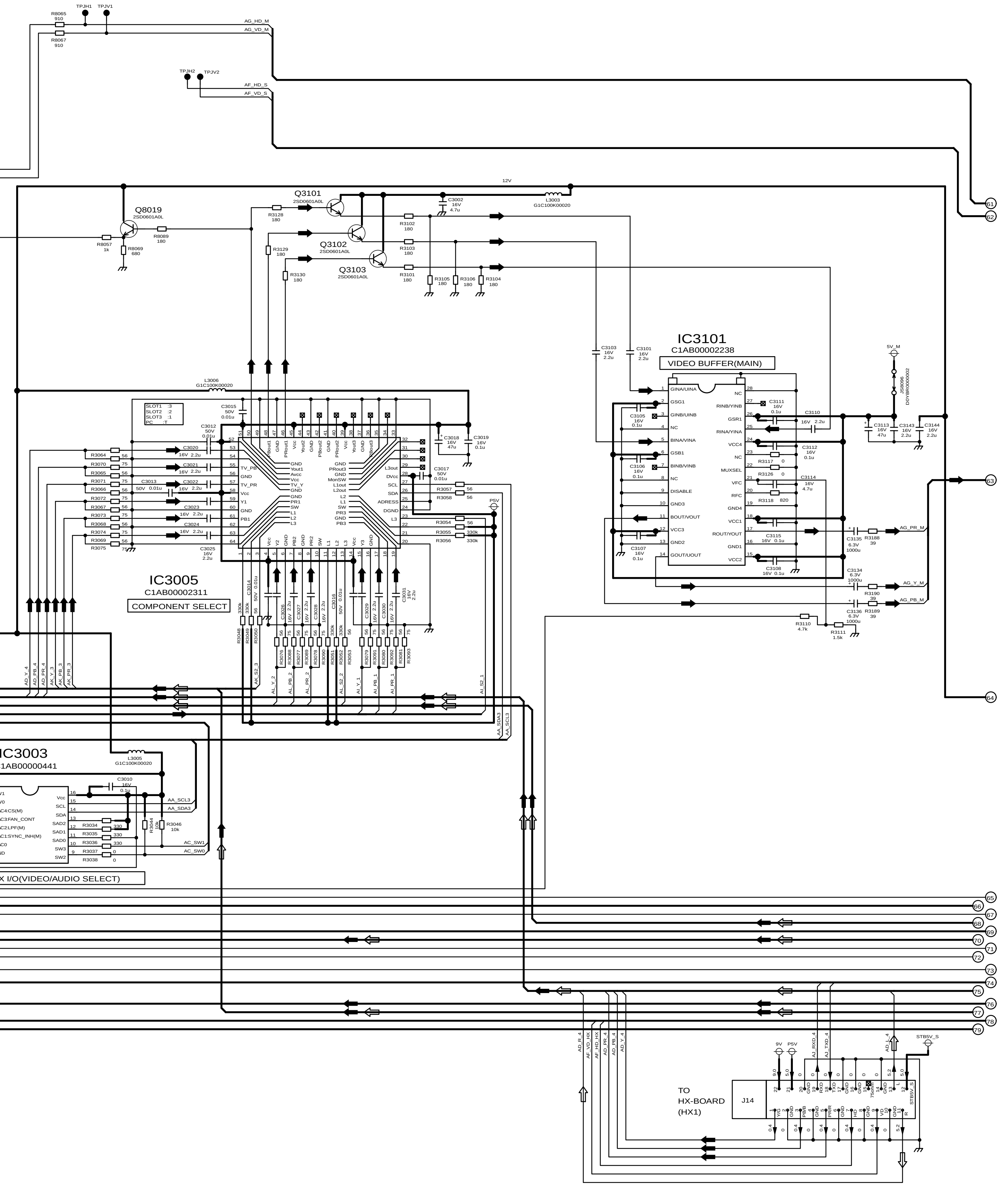
!
J-BOARD TNPA3630AB (3/4)

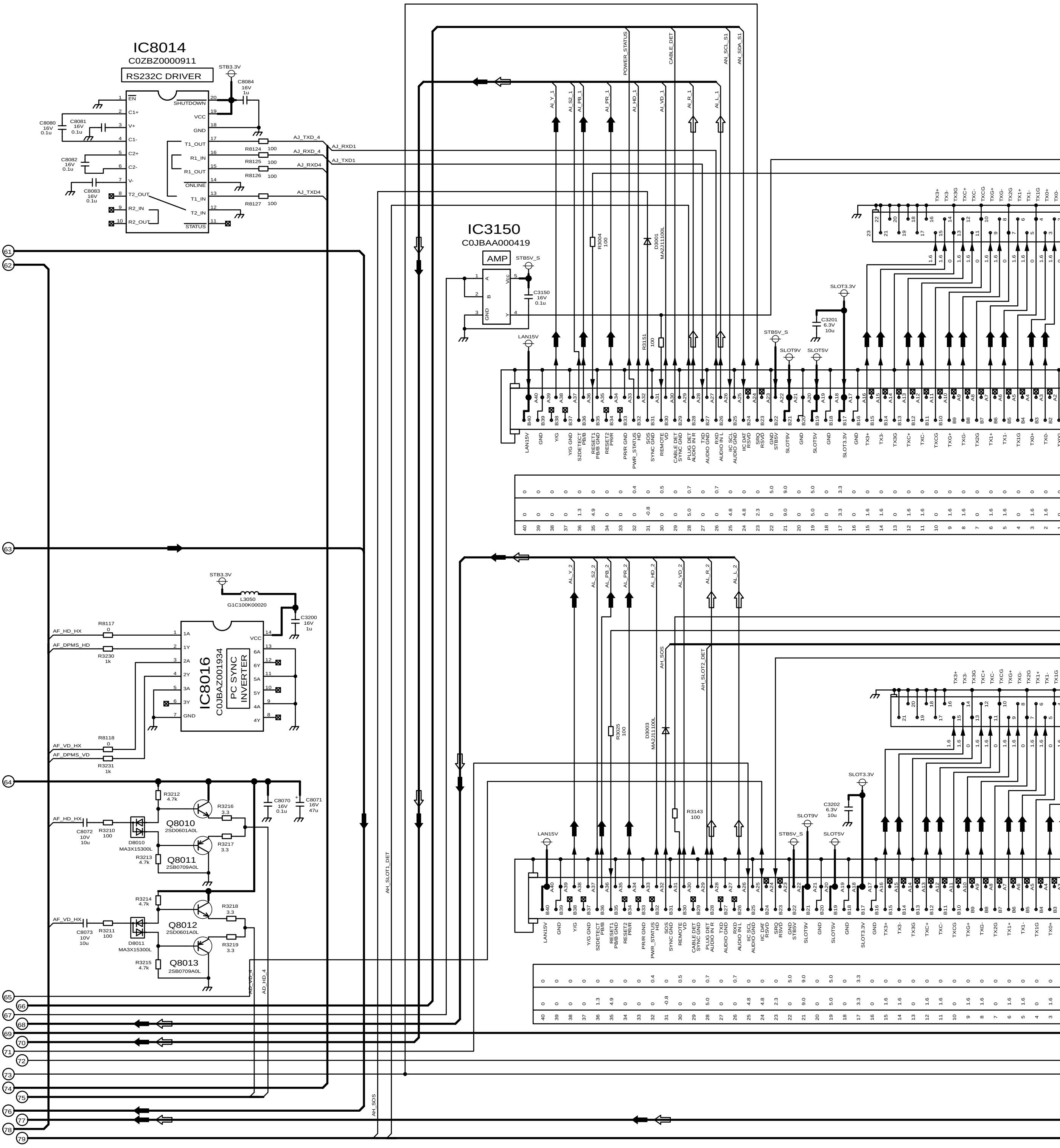

TPJH1
TPJV1
R8065 910
R8067 910
AG_HD_M
AG_VD_M
TPJH2
TPJV2
AF_HD_S
AF_VD_S
12V
Q3101 2SD0601A0L
Q8019 2SD0601A0L
Q3102 2SD0601A0L
Q3103 2SD0601A0L
C3002 16V 4.7u
L3003 G1C100K00020
R3128 180
R8089 180
R8057 1k
R8069 680
R3129 180
R3130 180
R3102 180
R3103 180
R3101 180
R3105 180
R3106 180
R3104 180
IC3101
C1AB00002238
VIDEO BUFFER(MAIN)
C3103 16V 2.2u
C3101 16V 2.2u
GINA/UINA
GSG1
GINB/UINB
NC
BINA/VINA
GSB1
BINB/VINB
DISABLE
GND3
BOUT/VOUT
VCC3
GND2
GOUT/UOUT
RINB/YINB
GSR1
RINA/YINA
VCC4
MUXSEL
VFC
RFC
GND4
VCC1
ROUT/YOUT
GND1
VCC2
C3111 16V 0.1u
C3110 16V 2.2u
C3105 16V 0.1u
C3106 16V 0.1u
C3107 16V 0.1u
C3112 16V 0.1u
R3117 0
R3126 0
R3118 820
C3114 16V 4.7u
C3115 16V 0.1u
C3108 16V 0.1u
5V_M
JS8096 D0YBR0000002
C3113 16V 47u
C3143 16V 2.2u
C3144 16V 2.2u
C3135 6.3V 1000u
R3188 39
AG_PR_M
C3134 6.3V 1000u
R3190 39
AG_Y_M
C3136 6.3V 1000u
R3189 39
AG_PB_M
R3110 4.7k
R3111 1.5k
L3006 G1C100K00020
SLOT1 :3
SLOT2 :2
SLOT3 :1
PC :T
C3015 50V 0.01u
C3012 50V 0.01u
C3020 16V 2.2u
C3021 16V 2.2u
C3013 50V 0.01u
C3022 16V 2.2u
C3023 16V 2.2u
C3024 16V 2.2u
C3025 16V 2.2u
R3064 56
R3070 75
R3065 56
R3071 75
R3066 56
R3072 75
R3067 56
R3073 75
R3068 56
R3074 75
R3069 56
R3075 75
TV_PB
GND
TV_PR
Vcc
Y1
GND
PB1
PRout1
Vcc
Yout2
GND
PRout2
Vcc
Yout3
GND
PBout3
Yout1
Avcc
TV_Y
PR1
SW
L1
L2
L3
PRout3
MonSW
L1out
L2out
L3out
DVcc
SCL
SDA
ADRESS
DGND
C3018 16V 47u
C3019 16V 0.1u
C3017 50V 0.01u
R3057 56
R3058 56
P5V
R3054 56
R3055 330k
R3056 330k
Y2
PB2
PR2
Y3
PB3
PR3
IC3005
C1AB00002311
COMPONENT SELECT
C3014 50V 0.01u
C3026 16V 2.2u
C3027 16V 2.2u
C3028 16V 2.2u
C3016 50V 0.01u
C3029 16V 2.2u
C3030 16V 2.2u
C3031 16V 2.2u
R3048 330k
R3049 330k
R3050 56
R3076 56
R3088 75
R3077 56
R3089 75
R3078 56
R3090 75
R3051 330k
R3052 330k
R3053 56
R3079 56
R3091 75
R3080 56
R3092 75
R3081 56
R3093 75
AD_Y_4
AD_PB_4
AD_PR_4
AK_Y_3
AK_PB_3
AK_PR_3
AK_S2_3
AL_Y_2
AL_PB_2
AL_PR_2
AL_S2_2
AI_Y_1
AI_PB_1
AI_PR_1
AI_S2_1
AA_SDA3
AA_SCL3
IC3003
C1AB00000441
L3005 G1C100K00020
C3010 16V 0.1u
Vcc
SCL
SDA
SAD2
SAD1
SAD0
SW3
SW2
C4:CS(M)
C3:FAN_CONT
C2:LPF(M)
C1:SYNC_INH(M)
R3034 330
R3035 330
R3036 330
R3037 0
R3038 0
R3044 10k
R3046 10k
AA_SCL3
AA_SDA3
AC_SW1
AC_SW0
X I/O(VIDEO/AUDIO SELECT)
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
AD_R_4
AF_VD_HX
AF_HD_HX
AD_PR_4
AD_PB_4
AD_Y_4
9V
P5V
AJ_RXD_4
AJ_TXD_4
AD_L_4
STB5V_S
TO
HX-BOARD
(HX1)
J14
Y/G
GND
PB/B
GND
PR/R
GND
HD
GND
VD
GND
R
RXD
TXD
75ohm
L
STB5V

TH-50PHD8BK/BS/EK/ES

J-Board (3 of 4) Schematic Diagram

23 24 25 26 27

15.16. J-Board (4 of 4) Schematic Diagram


IC8014
C0ZBZ0000911
RS232C DRIVER
EN
C1+
V+
C1-
C2+
C2-
V-
T2_OUT
R2_IN
R2_OUT
SHUTDOWN
VCC
GND
T1_OUT
R1_IN
R1_OUT
ONLINE
T1_IN
T2_IN
STATUS
STB3.3V
C8084 16V 1u
C8080 16V 0.1u
C8081 16V 0.1u
C8082 16V 0.1u
C8083 16V 0.1u
R8124 100
R8125 100
R8126 100
R8127 100
AJ_TXD_4
AJ_RXD_4
AJ_RXD4
AJ_TXD4
AJ_RXD1
AJ_TXD1
IC3150
C0JBAA000419
AMP
STB5V_S
C3150 16V 0.1u
POWER_STATUS
CABLE_DET
AN_SCL_S1
AN_SDA_S1
AI_Y_1
AI_S2_1
AI_PB_1
AI_PR_1
AI_HD_1
AI_VD_1
AI_R_1
AI_L_1
R3004 100
D3001 MA2J1100L
R3151 100
LAN15V
STB5V_S
SLOT9V
SLOT5V
SLOT3.3V
C3201 6.3V 10u
LAN15V
GND
Y/G
Y/G GND
S2DETECT PB/B
RESET1 PB/B GND
RESET2 PR/R
PR/R GND
PWR_STATUS HD
SOS SYNC GND
REMOTE VD
CABLE DET SYNC GND
PLUG DET AUDIO IN R
TXD AUDIO GND
RXD AUDIO IN L
IIC SCL AUDIO GND
IIC DAT RSVD
SRQ RSVD
GND STB5V
SLOT9V
GND
SLOT5V
GND
SLOT3.3V
GND
TX3+
TX3-
TX3G
TXC+
TXC-
TXCG
TXG+
TXG-
TX2G
TX1+
TX1-
TX1G
TX0+
TX0-
STB3.3V
L3050 G1C100K00020
C3200 16V 1u
AF_HD_HX
AF_DPMS_HD
R8117 0
R3230 1k
IC8016
C0JBAZ001934
PC SYNC INVERTER
1A
1Y
2A
2Y
3A
3Y
GND
VCC
6A
6Y
5A
5Y
4A
4Y
AF_VD_HX
AF_DPMS_VD
R8118 0
R3231 1k
R3212 4.7k
R3216 3.3
Q8010 2SD0601A0L
C8070 16V 0.1u
C8071 16V 47u
C8072 10V 10u
R3210 100
D8010 MA3X15300L
R3217 3.3
R3213 4.7k
Q8011 2SB0709A0L
R3214 4.7k
R3218 3.3
Q8012 2SD0601A0L
C8073 10V 10u
R3211 100
D8011 MA3X15300L
R3219 3.3
R3215 4.7k
Q8013 2SB0709A0L
AD_VD_4
AD_HD_4
AH_SLOT1_DET
AH_SOS
AL_Y_2
AL_S2_2
AL_PB_2
AL_PR_2
AL_HD_2
AL_VD_2
AL_R_2
AL_L_2
AH_SOS
AH_SLOT2_DET
R3025 100
D3003 MA2J1100L
R3143 100
C3202 6.3V 10u
61
62
63
64
65
66
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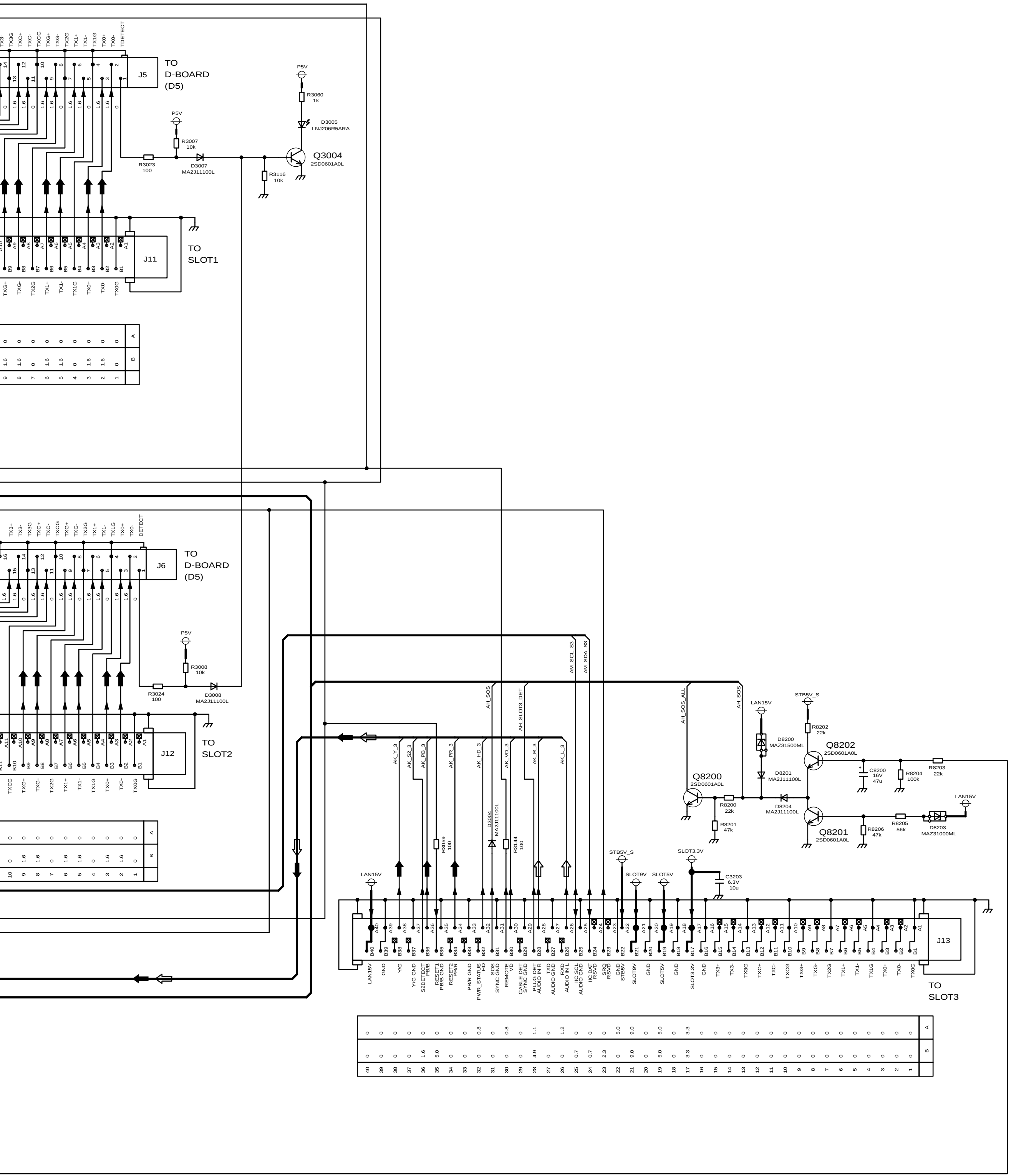
79
80

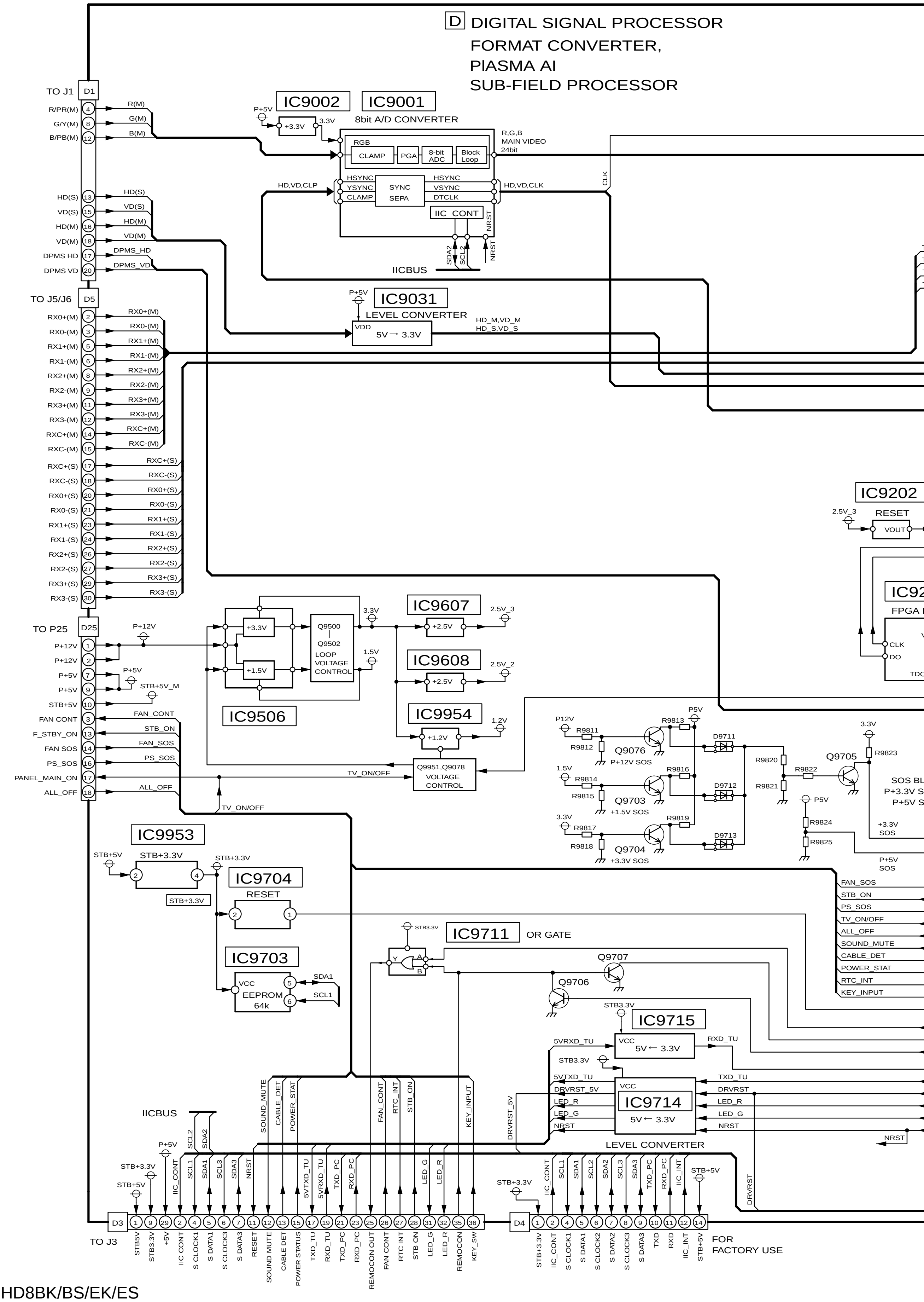
⚠ J-BOARD TNPA3630AB (4/4)


J5
TO D-BOARD (D5)
J11
TO SLOT1
J6
TO D-BOARD (D5)
J12
TO SLOT2
J13
TO SLOT3
P5V
R3060 1k
D3005 LNJ206R5ARA
Q3004 2SD0601A0L
R3007 10k
D3007 MA2J11100L
R3023 100
R3116 10k
R3008 10k
D3008 MA2J11100L
R3024 100
R3059 100
D3004 MA2J11100L
R3144 100
AM_SCL_S3
AM_SDA_S3
AH_SOS
AH_SLOT3_DET
AH_SOS_ALL
AK_Y_3
AK_S2_3
AK_PB_3
AK_PR_3
AK_HD_3
AK_VD_3
AK_R_3
AK_L_3
LAN15V
STB5V_S
SLOT9V
SLOT5V
SLOT3.3V
C3203 6.3V 10u
Q8200 2SD0601A0L
R8200 22k
R8201 47k
D8200 MAZ31500ML
D8201 MA2J11100L
D8204 MA2J11100L
Q8202 2SD0601A0L
R8202 22k
C8200 16V 47u
R8204 100k
R8203 22k
Q8201 2SD0601A0L
R8206 47k
R8205 56k
D8203 MAZ31000ML
LAN15V
GND
Y/G
Y/G GND
S2DETECT
RESET1 PB/B GND
RESET2 PB/R
PR/R GND
PWR_STATUS HD
SOS SYNC GND
REMOTE VD
CABLE DET SYNC GND
PLUG DET AUDIO IN R
TXD AUDIO GND
RXD AUDIO IN L
IIC SCL AUDIO GND
IIC DAT RSVD
SIRQ RSVD
GND STB5V
SLOT9V
GND
SLOT5V
GND
SLOT3.3V
GND
TX3+
TX3-
TX3G
TXC+
TXC-
TXCG
TXG+
TXG-
TX2G
TX1+
TX1-
TX1G
TX0+
TX0-
TX0G
DETECT

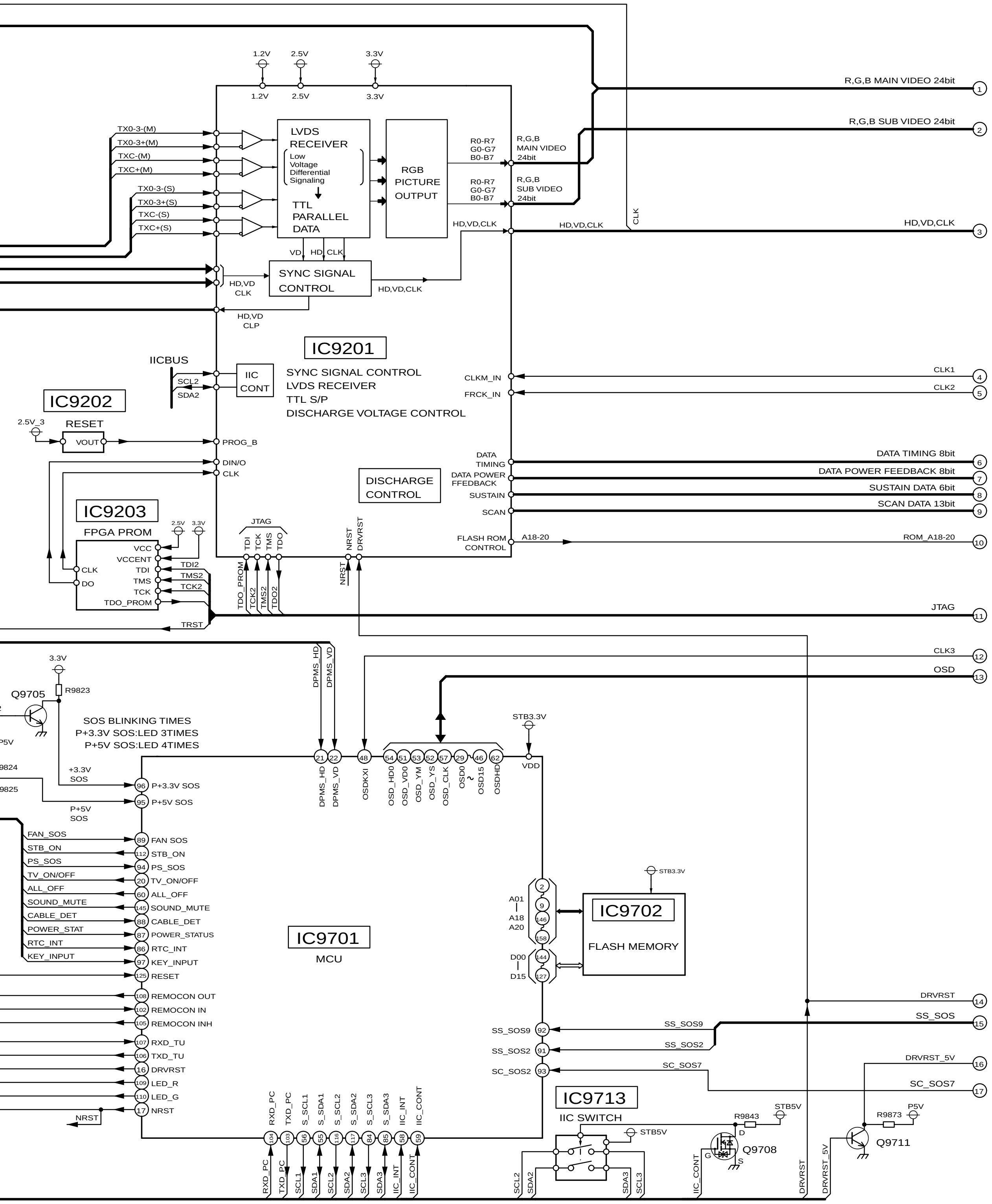
TH-50PHD8BK/BS/EK/ES
J-Board (4 of 4) Schematic Diagram

32 33 34 35 36

15.17. D-Board (1 of 2) Block Diagram

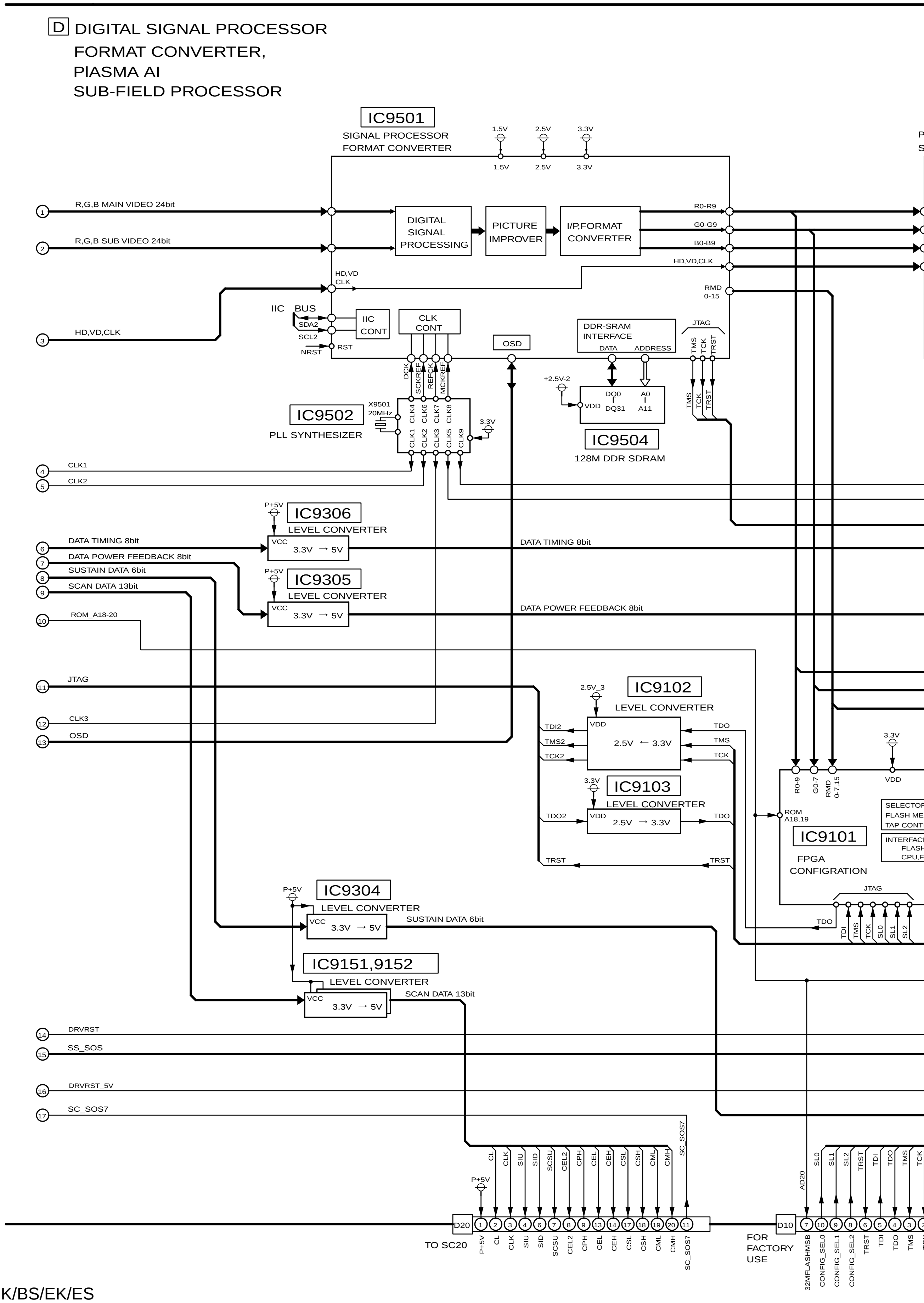

D DIGITAL SIGNAL PROCESSOR
FORMAT CONVERTER,
PIASMA AI
SUB-FIELD PROCESSOR
TO J1
D1
R/PR(M) 4
G/Y(M) 8
B/PB(M) 12
R(M)
G(M)
B(M)
HD(S) 13
VD(S) 15
HD(M) 16
VD(M) 18
DPMS HD 17
DPMS VD 20
DPMS_HD
DPMS_VD
IC9002
IC9001
8bit A/D CONVERTER
P+5V
+3.3V
3.3V
RGB
CLAMP
PGA
8-bit ADC
Block Loop
R,G,B
MAIN VIDEO
24bit
HD,VD,CLP
HSYNC
YSYNC
CLAMP
SYNC
SEPA
HSYNC
VSYNC
DTCLK
HD,VD,CLK
IIC CONT
NRST
SDA2
SCL2
IICBUS
CLK
TO J5/J6
D5
RX0+(M) 2
RX0-(M) 3
RX1+(M) 5
RX1-(M) 6
RX2+(M) 8
RX2-(M) 9
RX3+(M) 11
RX3-(M) 12
RXC+(M) 14
RXC-(M) 15
RXC+(S) 17
RXC-(S) 18
RX0+(S) 20
RX0-(S) 21
RX1+(S) 23
RX1-(S) 24
RX2+(S) 26
RX2-(S) 27
RX3+(S) 29
RX3-(S) 30
IC9031
LEVEL CONVERTER
VDD
5V → 3.3V
HD_M,VD_M
HD_S,VD_S
IC9202
RESET
2.5V_3
VOUT
IC92
FPGA
CLK
DO
TDC
TO P25
D25
P+12V 1
P+12V 2
P+5V 7
P+5V 9
STB+5V 10
FAN CONT 3
F_STBY_ON 13
FAN SOS 14
PS_SOS 16
PANEL_MAIN_ON 17
ALL_OFF 18
P+12V
P+5V
STB+5V_M
FAN_CONT
STB_ON
FAN_SOS
PS_SOS
ALL_OFF
TV_ON/OFF
+3.3V
+1.5V
Q9500
Q9502
LOOP VOLTAGE CONTROL
IC9506
3.3V
1.5V
IC9607
+2.5V
2.5V_3
IC9608
2.5V_2
IC9954
+1.2V
1.2V
Q9951,Q9078
VOLTAGE CONTROL
P12V
R9811
R9812
Q9076
P+12V SOS
R9813
P5V
D9711
1.5V
R9814
R9815
Q9703
+1.5V SOS
R9816
D9712
3.3V
R9817
R9818
Q9704
+3.3V SOS
R9819
D9713
R9820
R9821
R9822
Q9705
3.3V
R9823
P5V
R9824
R9825
SOS BL
P+3.3V S
P+5V S
+3.3V SOS
P+5V SOS
FAN_SOS
STB_ON
PS_SOS
TV_ON/OFF
ALL_OFF
SOUND_MUTE
CABLE_DET
POWER_STAT
RTC_INT
KEY_INPUT
IC9953
STB+5V
STB+3.3V
STB+3.3V
IC9704
RESET
IC9703
VCC
EEPROM
64k
SDA1
SCL1
IC9711
OR GATE
STB3.3V
Y
A
B
Q9707
Q9706
IC9715
STB3.3V
VCC
5V ← 3.3V
5VRXD_TU
RXD_TU
STB3.3V
5VTXD_TU
DRVRST_5V
LED_R
LED_G
NRST
IC9714
VCC
5V ← 3.3V
TXD_TU
DRVRST
LED_R
LED_G
NRST
NRST
LEVEL CONVERTER
DRVRST_5V
DRVRST
IICBUS
SCL2
SDA2
P+5V
STB+3.3V
STB+5V
IIC_CONT
SCL1
SDA1
SCL3
SDA3
NRST
SOUND_MUTE
CABLE_DET
POWER_STAT
5VTXD_TU
5VRXD_TU
TXD_PC
RXD_PC
FAN_CONT
RTC_INT
STB_ON
LED_G
LED_R
KEY_INPUT
D3
TO J3
1 STB5V
9 STB3.3V
29 +5V
2 IIC CONT
4 S CLOCK1
5 S DATA1
6 S CLOCK3
7 S DATA3
11 RESET
12 SOUND MUTE
13 CABLE DET
15 POWER STATUS
17 TXD_TU
19 RXD_TU
21 TXD_PC
23 RXD_PC
25 REMOCON OUT
26 FAN CONT
27 RTC INT
28 STB ON
31 LED_G
32 LED_R
35 REMOCON
36 KEY_SW
STB+3.3V
STB+5V
IIC_CONT
SCL1
SDA1
SCL2
SDA2
SCL3
SDA3
TXD_PC
RXD_PC
IIC_INT
D4
1 STB+3.3V
2 IIC_CONT
4 S CLOCK1
5 S DATA1
6 S CLOCK2
7 S DATA2
8 S CLOCK3
9 S DATA3
10 TXD
11 RXD
12 IIC_INT
14 STB+5V
FOR FACTORY USE

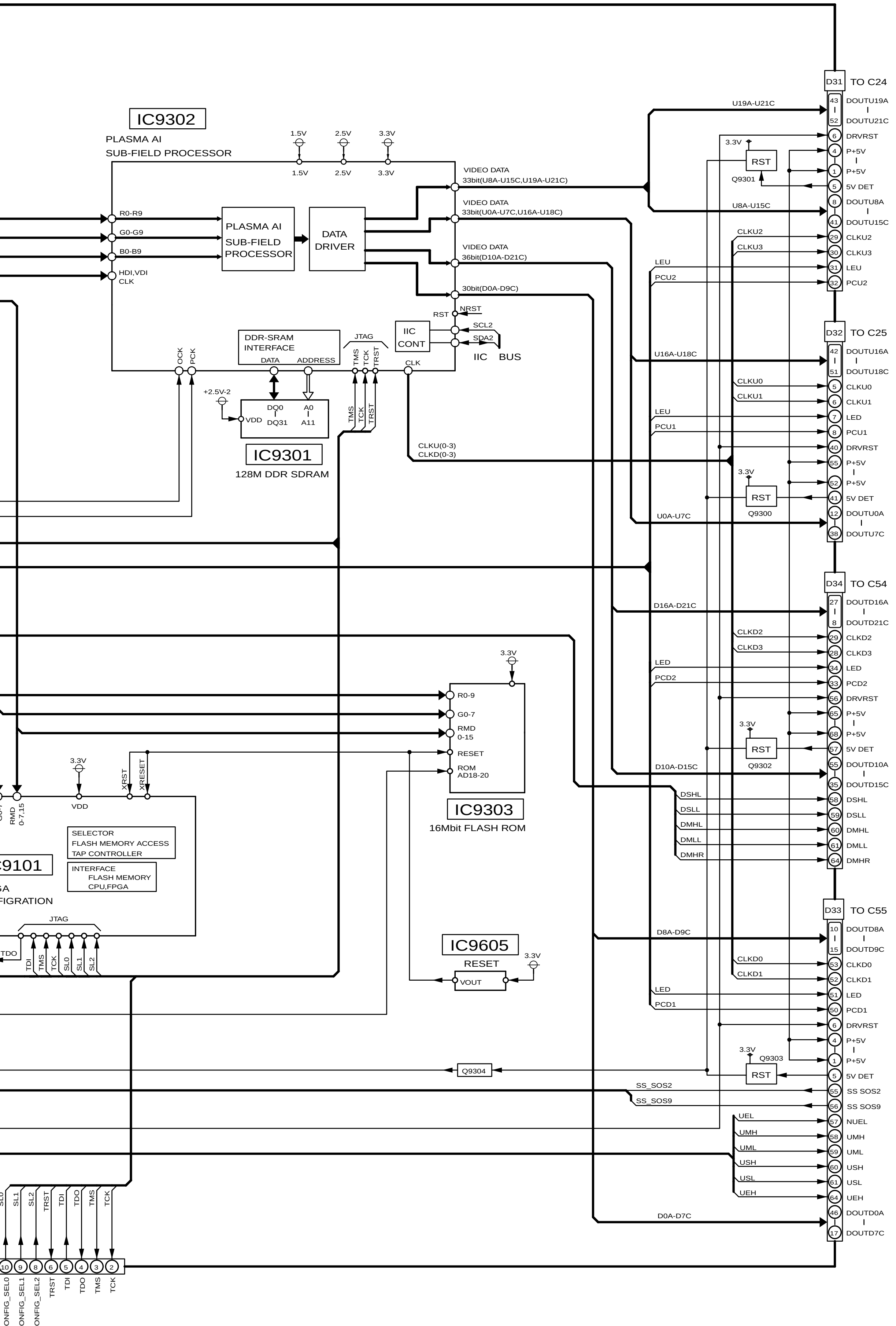
TH-50PHD8BK/BS/EK/ES
D-Board (1 of 2) Block Diagram


1.2V
2.5V
3.3V
TX0-3-(M)
TX0-3+(M)
TXC-(M)
TXC+(M)
TX0-3-(S)
TX0-3+(S)
TXC-(S)
TXC+(S)
LVDS RECEIVER
Low Voltage Differential Signaling
TTL PARALLEL DATA
RGB PICTURE OUTPUT
R0-R7 G0-G7 B0-B7
R,G,B MAIN VIDEO 24bit
R,G,B SUB VIDEO 24bit
HD,VD,CLK
CLK
VD
HD
SYNC SIGNAL CONTROL
HD,VD CLK
HD,VD CLP
IC9201
SYNC SIGNAL CONTROL
LVDS RECEIVER
TTL S/P
DISCHARGE VOLTAGE CONTROL
IICBUS
SCL2
SDA2
IIC CONT
CLKM_IN
FRCK_IN
CLK1
CLK2
IC9202
2.5V_3
RESET
VOUT
PROG_B
DIN/O
CLK
DATA TIMING
DATA POWER FFEDBACK
SUSTAIN
SCAN
DISCHARGE CONTROL
DATA TIMING 8bit
DATA POWER FEEDBACK 8bit
SUSTAIN DATA 6bit
SCAN DATA 13bit
IC9203
FPGA PROM
2.5V
3.3V
VCC
VCCENT
CLK
TDI
DO
TMS
TCK
TDO_PROM
TDI2
TMS2
TCK2
JTAG
TDI
TCK
TMS
TDO
TDO_PROM
TCK2
TMS2
TDO2
NRST
DRVRST
FLASH ROM CONTROL
A18-20
ROM_A18-20
TRST
JTAG
CLK3
OSD
3.3V
Q9705
R9823
P5V
9824
9825
+3.3V SOS
P+5V SOS
SOS BLINKING TIMES
P+3.3V SOS:LED 3TIMES
P+5V SOS:LED 4TIMES
DPMS_HD
DPMS_VD
STB3.3V
21 22 48 54 51 53 52 57 29 46 62
DPMS_HD
DPMS_VD
OSDKXI
OSD_HD0
OSD_VD0
OSD_YM
OSD_YS
OSD_CLK
OSD0 ~ OSD15
OSDHD
VDD
96 P+3.3V SOS
95 P+5V SOS
FAN_SOS
STB_ON
PS_SOS
TV_ON/OFF
ALL_OFF
SOUND_MUTE
CABLE_DET
POWER_STAT
RTC_INT
KEY_INPUT
89 FAN SOS
112 STB_ON
94 PS_SOS
20 TV_ON/OFF
60 ALL_OFF
145 SOUND_MUTE
88 CABLE_DET
87 POWER_STATUS
86 RTC_INT
97 KEY_INPUT
125 RESET
108 REMOCON OUT
102 REMOCON IN
105 REMOCON INH
107 RXD_TU
106 TXD_TU
16 DRVRST
109 LED_R
110 LED_G
17 NRST
NRST
IC9701
MCU
A01
A18
A20
D00
D15
2 9 146 158 144 127
STB3.3V
IC9702
FLASH MEMORY
DRVRST
SS_SOS9
SS_SOS
SS_SOS2
SC_SOS7
SS_SOS9 92
SS_SOS2 91
SC_SOS2 93
DRVRST_5V
RXD_PC
TXD_PC
S_SCL1
S_SDA1
S_SCL2
S_SDA2
S_SCL3
S_SDA3
IIC_INT
IIC_CONT
104 103 56 55 118 117 84 85 58 59
RXD_PC
TXD_PC
SCL1
SDA1
SCL2
SDA2
SCL3
SDA3
IIC_INT
IIC_CONT
IC9713
IIC SWITCH
STB5V
SCL2
SDA2
SDA3
SCL3
R9843
STB5V
D
G
S
Q9708
IIC_CONT
DRVRST
DRVRST_5V
R9873
P5V
Q9711
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

TH-50PHD8BK/BS/EK/ES
D-Board (1 of 2) Block Diagram

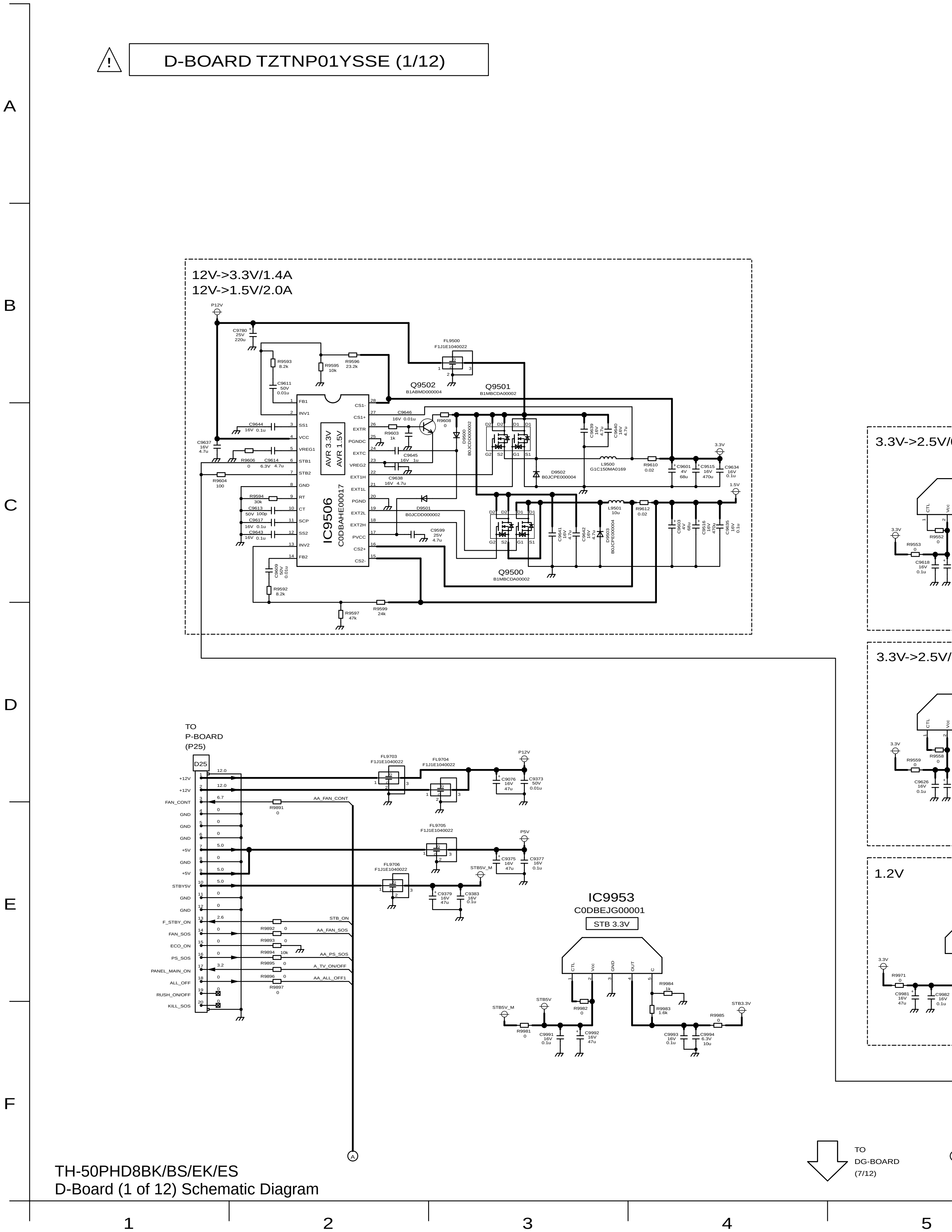
15.18. D-Board (2 of 2) Block Diagram


D DIGITAL SIGNAL PROCESSOR
FORMAT CONVERTER,
PIASMA AI
SUB-FIELD PROCESSOR
IC9501
SIGNAL PROCESSOR
FORMAT CONVERTER
1.5V
2.5V
3.3V
R,G,B MAIN VIDEO 24bit
R,G,B SUB VIDEO 24bit
HD,VD,CLK
DIGITAL SIGNAL PROCESSING
PICTURE IMPROVER
I/P,FORMAT CONVERTER
R0-R9
G0-G9
B0-B9
HD,VD,CLK
RMD 0-15
HD,VD CLK
IIC BUS
SDA2
SCL2
NRST
RST
IIC CONT
CLK CONT
OSD
DDR-SRAM INTERFACE
DATA
ADDRESS
JTAG
TMS
TCK
TRST
DCK
SCKREF
REFCK
MCKREF
+2.5V-2
DQ0
DQ31
A0
A11
VDD
IC9504
128M DDR SDRAM
IC9502
PLL SYNTHESIZER
X9501
20MHz
CLK4
CLK6
CLK7
CLK8
CLK1
CLK2
CLK3
CLK5
CLK9
3.3V
CLK1
CLK2
P+5V
IC9306
LEVEL CONVERTER
VCC
3.3V → 5V
DATA TIMING 8bit
DATA POWER FEEDBACK 8bit
SUSTAIN DATA 6bit
SCAN DATA 13bit
IC9305
LEVEL CONVERTER
ROM_A18-20
JTAG
CLK3
OSD
2.5V_3
IC9102
LEVEL CONVERTER
TDI2
TMS2
TCK2
VDD
2.5V ← 3.3V
TDO
TMS
TCK
3.3V
IC9103
LEVEL CONVERTER
TDO2
2.5V → 3.3V
TRST
R0-9
G0-7
RMD 0-7,15
VDD
ROM A18,19
SELECTOR
FLASH ME
TAP CONT
INTERFAC
FLASH
CPU,F
IC9101
FPGA CONFIGRATION
JTAG
TDO
TDI
SL0
SL1
SL2
IC9304
LEVEL CONVERTER
SUSTAIN DATA 6bit
IC9151,9152
LEVEL CONVERTER
SCAN DATA 13bit
DRVRST
SS_SOS
DRVRST_5V
SC_SOS7
CL
CLK
SIU
SID
SCSU
CEL2
CPH
CEL
CEH
CSL
CSH
CML
CMH
SC_SOS7
AD20
D20
TO SC20
P+5V
D10
FOR FACTORY USE
32MFLASHMSB
CONFIG_SEL0
CONFIG_SEL1
CONFIG_SEL2
TRST
TDI
TDO
TMS
TCK
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

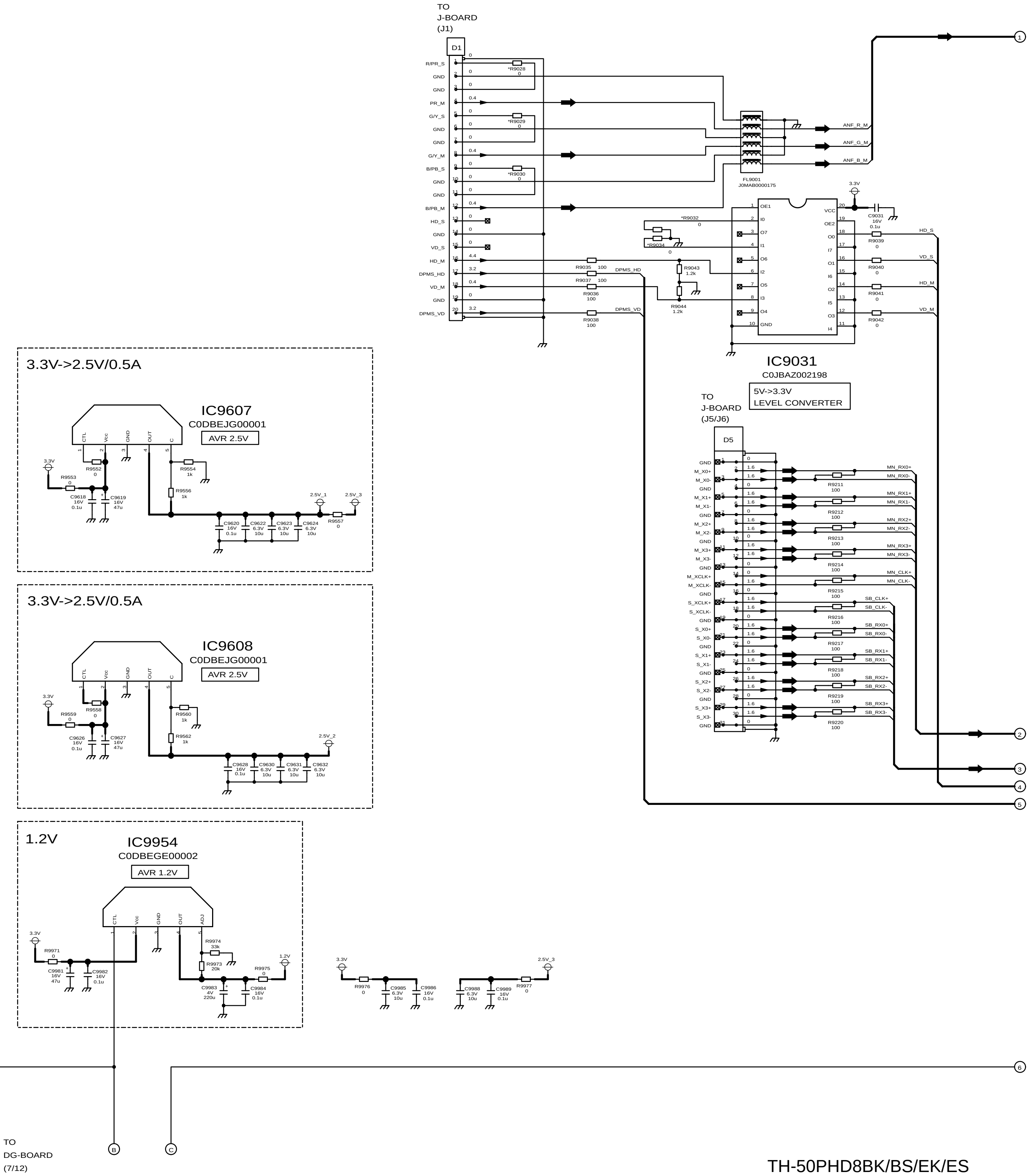

IC9302
PLASMA AI
SUB-FIELD PROCESSOR
1.5V
2.5V
3.3V
1.5V
2.5V
3.3V
R0-R9
G0-G9
B0-B9
HDI,VDI
CLK
PLASMA AI
SUB-FIELD
PROCESSOR
DATA
DRIVER
VIDEO DATA
33bit(U8A-U15C,U19A-U21C)
VIDEO DATA
33bit(U0A-U7C,U16A-U18C)
VIDEO DATA
36bit(D10A-D21C)
30bit(D0A-D9C)
RST
NRST
SCL2
SDA2
IIC
CONT
IIC BUS
DDR-SRAM
INTERFACE
DATA
ADDRESS
JTAG
TMS
TCK
TRST
CLK
OCK
PCK
+2.5V-2
VDD
DQ0
DQ31
A0
A11
TMS
TCK
TRST
IC9301
128M DDR SDRAM
CLKU(0-3)
CLKD(0-3)
U19A-U21C
3.3V
RST
Q9301
U8A-U15C
CLKU2
CLKU3
LEU
PCU2
U16A-U18C
CLKU0
CLKU1
LEU
PCU1
3.3V
RST
Q9300
U0A-U7C
D31
TO C24
43
52
6
4
1
5
8
41
29
30
31
32
DOUTU19A
DOUTU21C
DRVRST
P+5V
P+5V
5V DET
DOUTU8A
DOUTU15C
CLKU2
CLKU3
LEU
PCU2
D32
TO C25
42
51
5
6
7
8
40
55
52
41
12
38
DOUTU16A
DOUTU18C
CLKU0
CLKU1
LED
PCU1
DRVRST
P+5V
P+5V
5V DET
DOUTU0A
DOUTU7C
D34
TO C54
27
8
29
28
34
33
56
65
68
57
55
35
58
59
60
61
64
DOUTD16A
DOUTD21C
CLKD2
CLKD3
LED
PCD2
DRVRST
P+5V
P+5V
5V DET
DOUTD10A
DOUTD15C
DSHL
DSLL
DMHL
DMLL
DMHR
D16A-D21C
CLKD2
CLKD3
LED
PCD2
3.3V
RST
Q9302
D10A-D15C
DSHL
DSLL
DMHL
DMLL
DMHR
3.3V
R0-9
G0-7
RMD
0-15
RESET
ROM
AD18-20
IC9303
16Mbit FLASH ROM
3.3V
XRST
XRESET
VDD
RMD
0-7,15
SELECTOR
FLASH MEMORY ACCESS
TAP CONTROLLER
INTERFACE
FLASH MEMORY
CPU,FPGA
9101
A
FIGRATION
JTAG
TDO
TDI
TMS
TCK
SL0
SL1
SL2
IC9605
RESET
3.3V
VOUT
D33
TO C55
10
15
53
52
51
50
6
4
1
5
55
56
57
58
59
60
61
64
46
17
DOUTD8A
DOUTD9C
CLKD0
CLKD1
LED
PCD1
DRVRST
P+5V
P+5V
5V DET
SS SOS2
SS SOS9
NUEL
UMH
UML
USH
USL
UEH
DOUTD0A
DOUTD7C
D8A-D9C
CLKD0
CLKD1
LED
PCD1
3.3V
Q9303
RST
Q9304
SS_SOS2
SS_SOS9
UEL
UMH
UML
USH
USL
UEH
D0A-D7C
SL0
SL1
SL2
TRST
TDI
TDO
TMS
TCK
10
9
8
6
5
4
3
2
CONFIG_SEL0
CONFIG_SEL1
CONFIG_SEL2
TRST
TDI
TDO
TMS
TCK

TH-50PHD8BK/BS/EK/ES
D-Board (2 of 2) Block Diagram

15.19. D-Board (1 of 12) Schematic Diagram


D-BOARD TZTNP01YSSE (1/12)
A
B
C
D
E
F
1
2
3
4
5
12V->3.3V/1.4A
12V->1.5V/2.0A
P12V
C9780 25V 220u
R9593 8.2k
R9595 10k
R9596 23.2k
C9611 50V 0.01u
FL9500 F1J1E1040022
Q9502 B1ABMD000004
Q9501 B1MBCDA00002
Q9500 B1MBCDA00002
IC9506 C0DBAHE00017
AVR 3.3V
AVR 1.5V
FB1
INV1
SS1
VCC
VREG1
STB1
STB2
GND
RT
CT
SCP
SS2
INV2
FB2
CS1-
CS1+
EXTR
PGNDC
EXTC
VREG2
EXT1H
EXT1L
PGND
EXT2L
EXT2H
PVCC
CS2+
CS2-
C9644 16V 0.1u
C9637 16V 4.7u
R9606 0
C9614 6.3V 4.7u
R9604 100
R9594 30k
C9613 50V 100p
C9617 16V 0.1u
C9643 16V 0.1u
C9609 50V 0.01u
R9592 8.2k
R9597 47k
R9599 24k
C9646 16V 0.01u
R9603 1k
R9608 0
C9645 16V 1u
C9638 16V 4.7u
D9501 B0JCDD000002
D9500 B0JCDD000002
C9599 25V 4.7u
D9502 B0JCPE000004
D9503 B0JCPE000004
L9500 G1C150MA0169
L9501 10u
R9610 0.02
R9612 0.02
C9639 16V 4.7u
C9640 16V 4.7u
C9641 16V 4.7u
C9642 16V 4.7u
C9601 4V 68u
C9515 16V 470u
C9634 16V 0.1u
C9603 4V 68u
C9516 16V 470u
C9635 16V 0.1u
3.3V
1.5V
3.3V->2.5V/
3.3V->2.5V/
1.2V
R9553 0
R9552 0
C9618 16V 0.1u
R9559 0
R9558 0
C9626 16V 0.1u
R9971 0
C9981 16V 47u
C9982 16V 0.1u
CTL
Vcc
TO P-BOARD (P25)
D25
+12V
+12V
FAN_CONT
GND
GND
GND
+5V
GND
+5V
STBY5V
GND
GND
F_STBY_ON
FAN_SOS
ECO_ON
PS_SOS
PANEL_MAIN_ON
ALL_OFF
RUSH_ON/OFF
KILL_SOS
FL9703 F1J1E1040022
FL9704 F1J1E1040022
FL9705 F1J1E1040022
FL9706 F1J1E1040022
C9076 16V 47u
C9373 50V 0.01u
C9375 16V 47u
C9377 16V 0.1u
C9379 16V 47u
C9383 16V 0.1u
P5V
STB5V_M
R9891 0
AA_FAN_CONT
R9892 0
R9893 0
R9894 10k
R9895 0
R9896 0
R9897 0
STB_ON
AA_FAN_SOS
AA_PS_SOS
A_TV_ON/OFF
AA_ALL_OFF1
IC9953
C0DBEJG00001
STB 3.3V
GND
OUT
C
R9984 1k
R9982 0
R9983 1.6k
R9985 0
R9981 0
STB5V
STB3.3V
C9991 16V 0.1u
C9992 16V 47u
C9993 16V 0.1u
C9994 6.3V 10u
A
TO DG-BOARD (7/12)

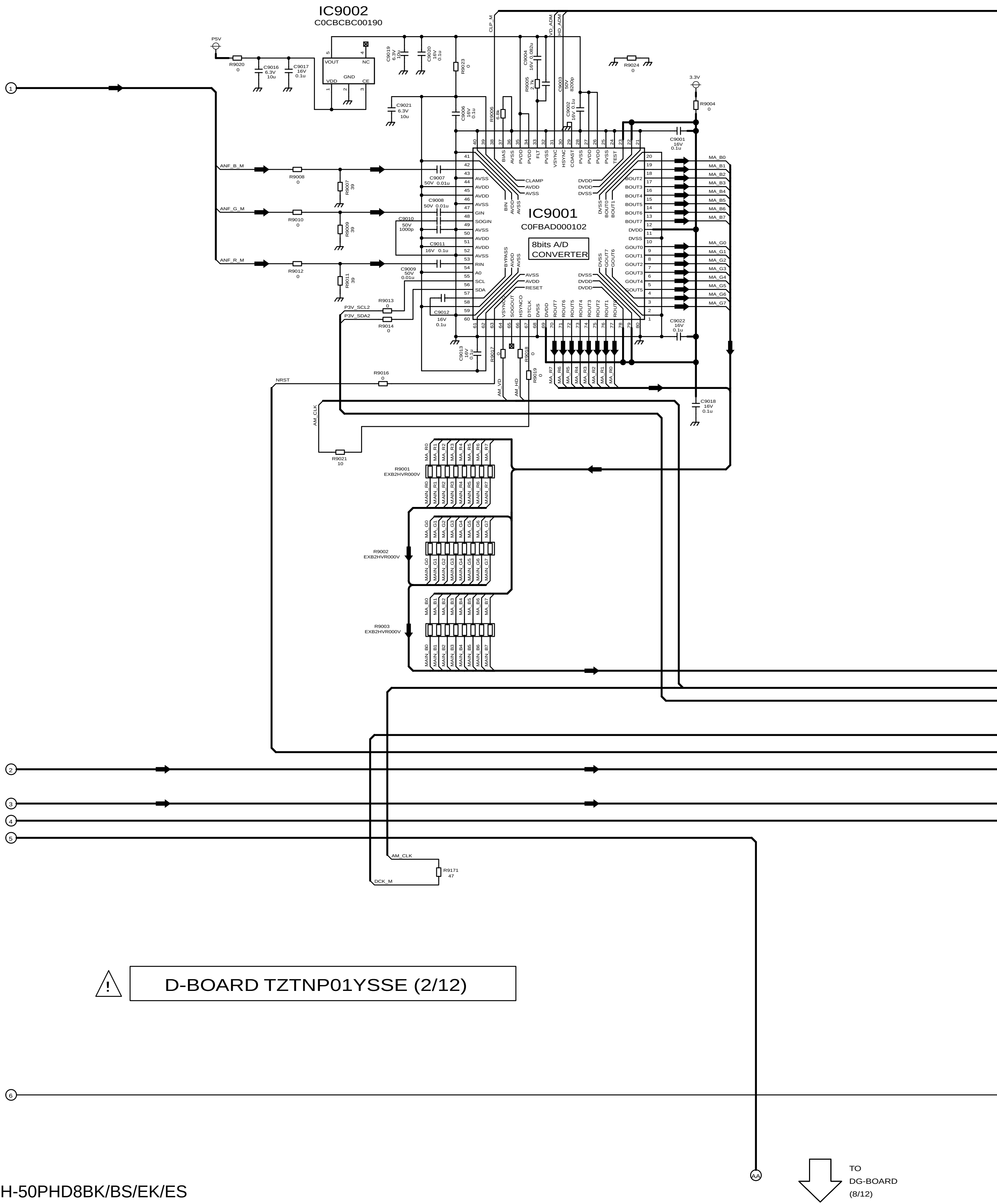
TH-50PHD8BK/BS/EK/ES
D-Board (1 of 12) Schematic Diagram


TO
J-BOARD
(J1)
D1
R/PR_S
GND
GND
PR_M
G/Y_S
GND
GND
G/Y_M
B/PB_S
GND
GND
B/PB_M
HD_S
GND
VD_S
HD_M
DPMS_HD
VD_M
GND
DPMS_VD
*R9028
*R9029
*R9030
R9035 100
R9037 100
R9036 100
R9038 100
DPMS_HD
DPMS_VD
FL9001
J0MAB0000175
ANF_R_M
ANF_G_M
ANF_B_M
3.3V
C9031 16V 0.1u
*R9032
*R9034
R9043 1.2k
R9044 1.2k
OE1
I0
O7
I1
O6
I2
O5
I3
O4
GND
VCC
OE2
O0
I7
O1
I6
O2
I5
O3
I4
R9039 0
R9040 0
R9041 0
R9042 0
HD_S
VD_S
HD_M
VD_M
IC9031
C0JBAZ002198
5V->3.3V
LEVEL CONVERTER
TO
J-BOARD
(J5/J6)
D5
GND
M_X0+
M_X0-
GND
M_X1+
M_X1-
GND
M_X2+
M_X2-
GND
M_X3+
M_X3-
GND
M_XCLK+
M_XCLK-
GND
S_XCLK+
S_XCLK-
GND
S_X0+
S_X0-
GND
S_X1+
S_X1-
GND
S_X2+
S_X2-
GND
S_X3+
S_X3-
GND
R9211 100
R9212 100
R9213 100
R9214 100
R9215 100
R9216 100
R9217 100
R9218 100
R9219 100
R9220 100
MN_RX0+
MN_RX0-
MN_RX1+
MN_RX1-
MN_RX2+
MN_RX2-
MN_RX3+
MN_RX3-
MN_CLK+
MN_CLK-
SB_CLK+
SB_CLK-
SB_RX0+
SB_RX0-
SB_RX1+
SB_RX1-
SB_RX2+
SB_RX2-
SB_RX3+
SB_RX3-
1
2
3
4
5
3.3V->2.5V/0.5A
IC9607
C0DBEJG00001
AVR 2.5V
CTL
Vcc
GND
OUT
C
3.3V
R9552 0
R9553 0
R9554 1k
R9556 1k
C9618 16V 0.1u
C9619 16V 47u
C9620 16V 0.1u
C9622 6.3V 10u
C9623 6.3V 10u
C9624 6.3V 10u
R9557 0
2.5V_1
2.5V_3
3.3V->2.5V/0.5A
IC9608
C0DBEJG00001
AVR 2.5V
CTL
Vcc
GND
OUT
C
3.3V
R9558 0
R9559 0
R9560 1k
R9562 1k
C9626 16V 0.1u
C9627 16V 47u
C9628 16V 0.1u
C9630 6.3V 10u
C9631 6.3V 10u
C9632 6.3V 10u
2.5V_2
1.2V
IC9954
C0DBEGE00002
AVR 1.2V
CTL
Vcc
GND
OUT
ADJ
3.3V
R9971 0
C9981 16V 47u
C9982 16V 0.1u
R9974 33k
R9973 20k
R9975 0
C9983 4V 220u
C9984 16V 0.1u
1.2V
3.3V
R9976 0
C9985 6.3V 10u
C9986 16V 0.1u
C9988 6.3V 10u
C9989 16V 0.1u
R9977 0
2.5V_3
6
TO
DG-BOARD
(7/12)
B
C

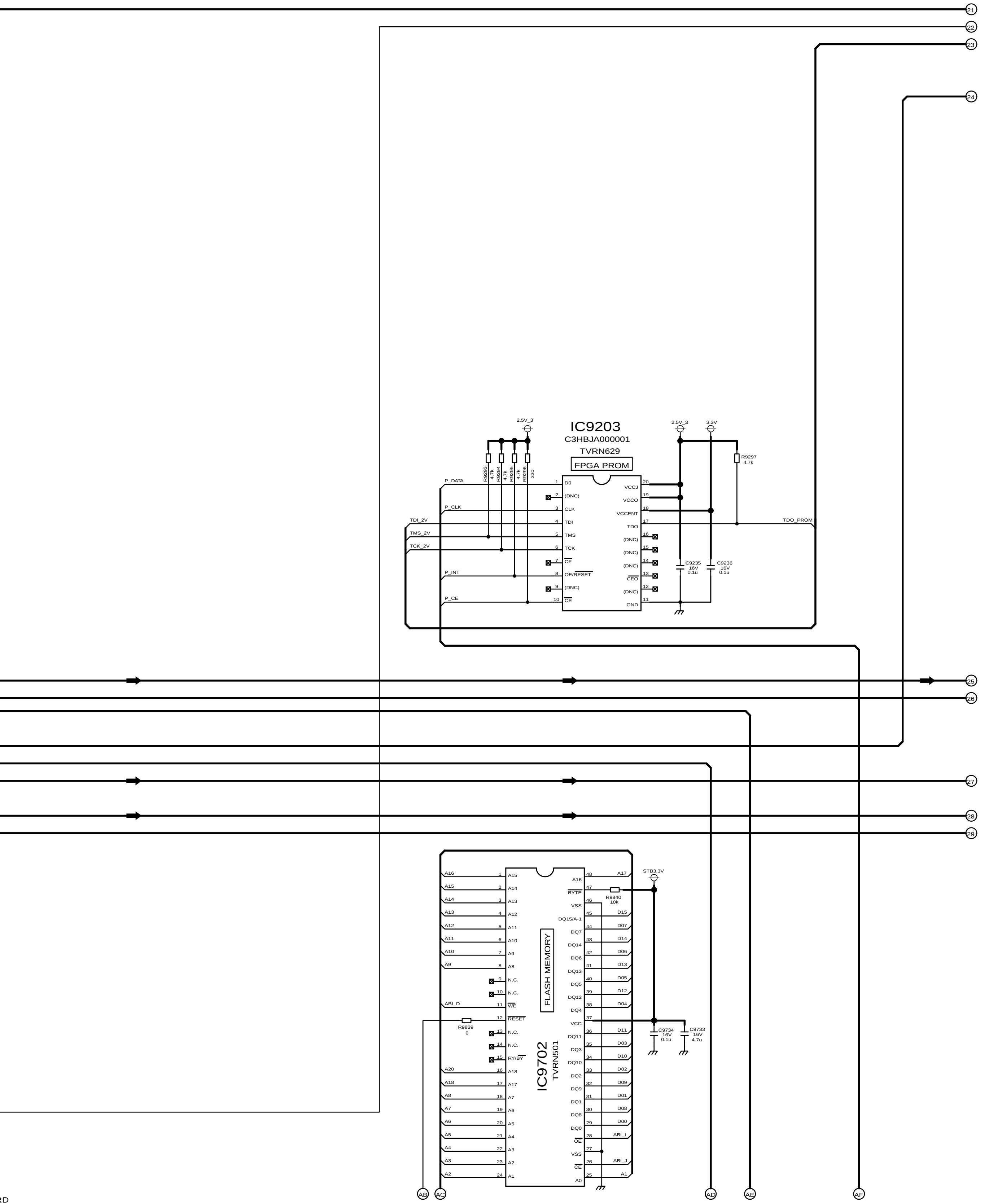
TH-50PHD8BK/BS/EK/ES
D-Board (1 of 12) Schematic Diagram

5 6 7 8 9

15.20. D-Board (2 of 12) Schematic Diagram


IC9002
C0CBCBC00190
P5V
R9020
0
C9016
6.3V
10u
C9017
16V
0.1u
VOUT
NC
GND
VDD
CE
C9019
6.3V
10u
C9020
16V
0.1u
R9023
0
C9021
6.3V
10u
C9006
16V
0.1u
R9006
6.8k
CLP_M
VD_ADM
HD_ADM
C9004
16V 0.082u
R9005
2.7k
C9003
50V
8200p
C9002
16V 0.1u
R9024
0
3.3V
R9004
0
C9001
16V
0.1u
IC9001
C0FBAD000102
8bits A/D
CONVERTER
ANF_B_M
ANF_G_M
ANF_R_M
R9008
0
R9007
39
R9010
0
R9009
39
R9012
0
R9011
39
C9007
50V 0.01u
C9008
50V 0.01u
C9010
50V
1000p
C9011
16V 0.1u
C9009
50V
0.01u
C9012
16V
0.1u
C9013
16V
0.1u
R9013
0
R9014
0
P3V_SCL2
P3V_SDA2
R9016
0
NRST
R9017
0
R9018
0
R9019
0
AM_VD
AM_HD
AM_CLK
R9021
10
C9022
16V
0.1u
C9018
16V
0.1u
BIAS
AVSS
AVDD
PVDD
FLT
PVSS
VSYNC
HSYNC
COAST
TEST
CLAMP
DVDD
DVSS
GIN
SOGIN
RIN
A0
SCL
SDA
BIN
BYPASS
VSYNCO
SOGOUT
HSYNCO
DTCLK
RESET
BOUT0
BOUT1
BOUT2
BOUT3
BOUT4
BOUT5
BOUT6
BOUT7
GOUT0
GOUT1
GOUT2
GOUT3
GOUT4
GOUT5
GOUT6
GOUT7
ROUT0
ROUT1
ROUT2
ROUT3
ROUT4
ROUT5
ROUT6
ROUT7
MA_B0
MA_B1
MA_B2
MA_B3
MA_B4
MA_B5
MA_B6
MA_B7
MA_G0
MA_G1
MA_G2
MA_G3
MA_G4
MA_G5
MA_G6
MA_G7
MA_R0
MA_R1
MA_R2
MA_R3
MA_R4
MA_R5
MA_R6
MA_R7
R9001
EXB2HVR000V
MAIN_R0
MAIN_R1
MAIN_R2
MAIN_R3
MAIN_R4
MAIN_R5
MAIN_R6
MAIN_R7
R9002
EXB2HVR000V
MAIN_G0
MAIN_G1
MAIN_G2
MAIN_G3
MAIN_G4
MAIN_G5
MAIN_G6
MAIN_G7
R9003
EXB2HVR000V
MAIN_B0
MAIN_B1
MAIN_B2
MAIN_B3
MAIN_B4
MAIN_B5
MAIN_B6
MAIN_B7
AM_CLK
R9171
47
DCK_M
1
2
3
4
5
6
AA
TO
DG-BOARD
(8/12)

D-BOARD TZTNP01YSSE (2/12)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㉒
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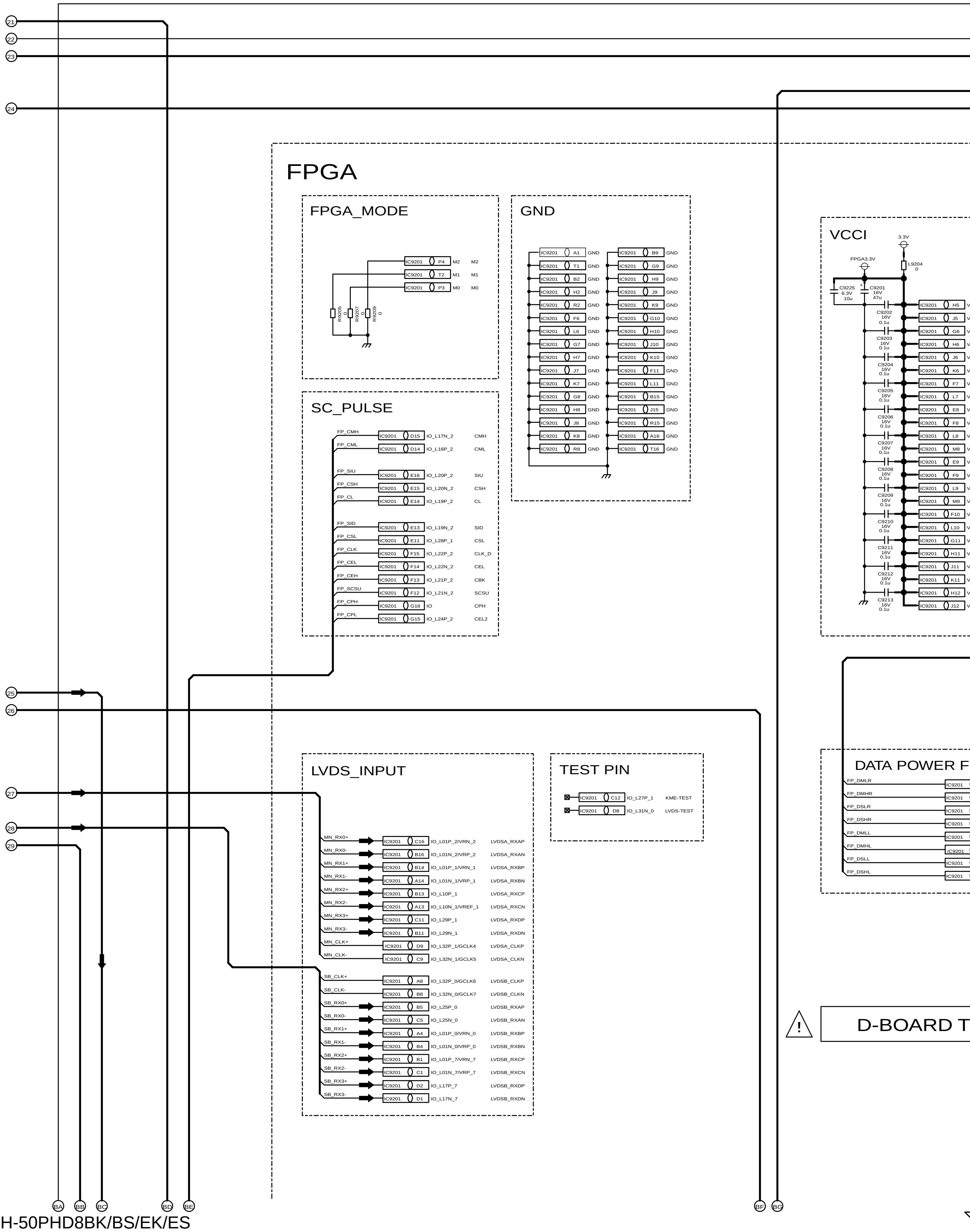
㉘
㉙
IC9203
C3HBJA000001
TVRN629
FPGA PROM
2.5V_3
3.3V
R9293 4.7k
R9294 4.7k
R9295 4.7k
R9296 330
R9297 4.7k
P_DATA
P_CLK
TDI_2V
TMS_2V
TCK_2V
P_INT
P_CE
TDO_PROM
1 D0
2 (DNC)
3 CLK
4 TDI
5 TMS
6 TCK
7 CF
8 OE/RESET
9 (DNC)
10 CE
20 VCCJ
19 VCCO
18 VCCENT
17 TDO
16 (DNC)
15 (DNC)
14 (DNC)
13 CEO
12 (DNC)
11 GND
C9235 16V 0.1u
C9236 16V 0.1u
IC9702
TVRN501
FLASH MEMORY
STB3.3V
R9840 10k
R9839 0
C9734 16V 0.1u
C9733 16V 4.7u
A16 1 A15
A15 2 A14
A14 3 A13
A13 4 A12
A12 5 A11
A11 6 A10
A10 7 A9
A9 8 A8
9 N.C.
10 N.C.
ABI_D 11 WE
12 RESET
13 N.C.
14 N.C.
15 RY/BY
A20 16 A18
A18 17 A17
A8 18 A7
A7 19 A6
A6 20 A5
A5 21 A4
A4 22 A3
A3 23 A2
A2 24 A1
48 A16 A17
47 BYTE
46 VSS
45 DQ15/A-1 D15
44 DQ7 D07
43 DQ14 D14
42 DQ6 D06
41 DQ13 D13
40 DQ5 D05
39 DQ12 D12
38 DQ4 D04
37 VCC
36 DQ11 D11
35 DQ3 D03
34 DQ10 D10
33 DQ2 D02
32 DQ9 D09
31 DQ1 D01
30 DQ8 D08
29 DQ0 D00
28 OE ABI_I
27 VSS
26 CE ABI_J
25 A0 A1
AB
AC
AD
AE
AF
RD

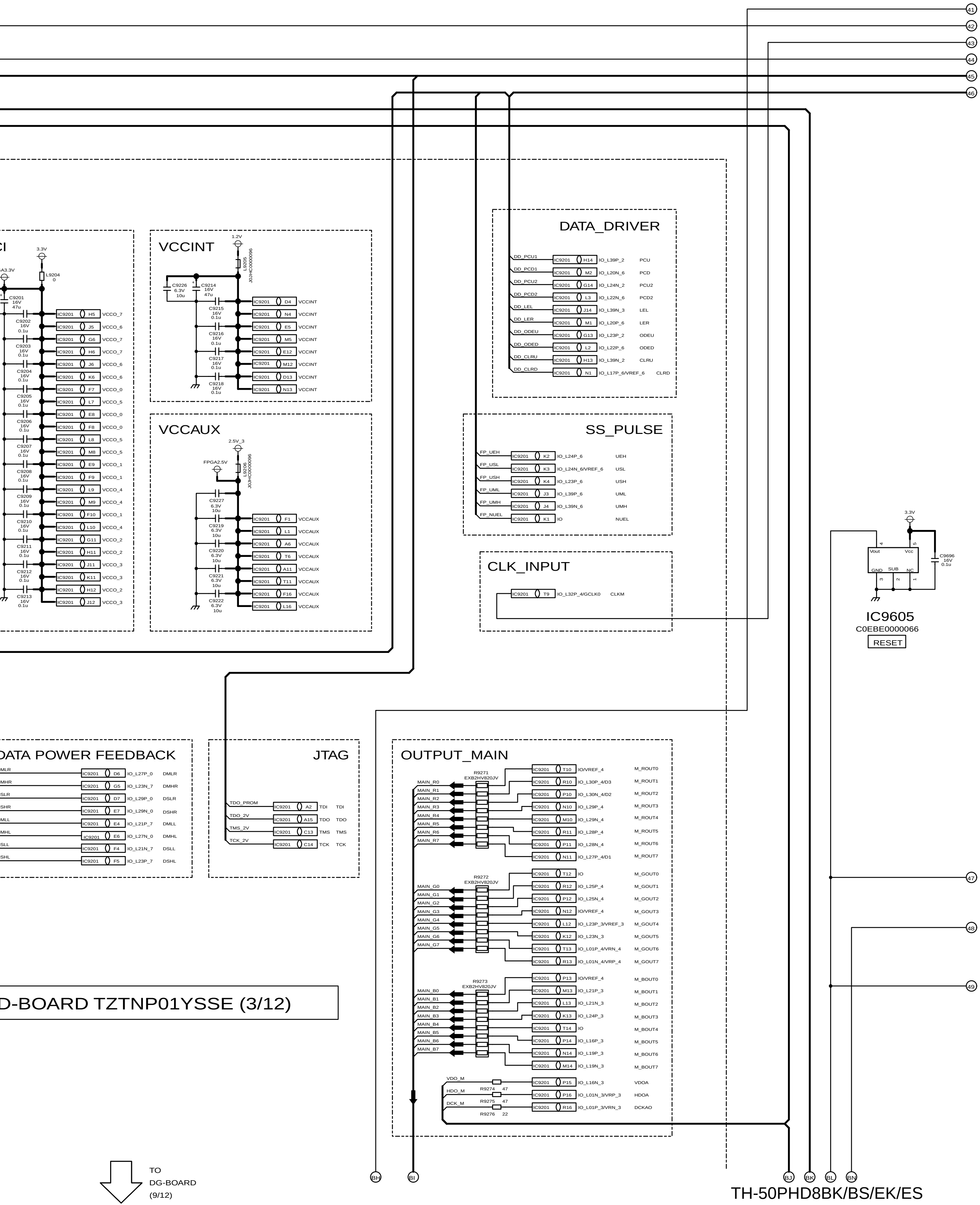
TH-50PHD8BK/BS/EK/ES
D-Board (2 of 12) Schematic Diagram

14 15 16 17 18

15.21. D-Board (3 of 12) Schematic Diagram



21
22
23
24
25
26
27
28
29
FPGA
FPGA_MODE
IC9201 P4 M2 M2
IC9201 T2 M1 M1
IC9201 P3 M0 M0
R9205 0
R9207 0
R9209 0
GND
IC9201 A1 GND
IC9201 T1 GND
IC9201 B2 GND
IC9201 H2 GND
IC9201 R2 GND
IC9201 F6 GND
IC9201 L6 GND
IC9201 G7 GND
IC9201 H7 GND
IC9201 J7 GND
IC9201 K7 GND
IC9201 G8 GND
IC9201 H8 GND
IC9201 J8 GND
IC9201 K8 GND
IC9201 R8 GND
IC9201 B9 GND
IC9201 G9 GND
IC9201 H9 GND
IC9201 J9 GND
IC9201 K9 GND
IC9201 G10 GND
IC9201 H10 GND
IC9201 J10 GND
IC9201 K10 GND
IC9201 F11 GND
IC9201 L11 GND
IC9201 B15 GND
IC9201 J15 GND
IC9201 R15 GND
IC9201 A16 GND
IC9201 T16 GND
SC_PULSE
FP_CMH IC9201 D15 IO_L17N_2 CMH
FP_CML IC9201 D14 IO_L16P_2 CML
FP_SIU IC9201 E16 IO_L20P_2 SIU
FP_CSH IC9201 E15 IO_L20N_2 CSH
FP_CL IC9201 E14 IO_L19P_2 CL
FP_SID IC9201 E13 IO_L19N_2 SID
FP_CSL IC9201 E11 IO_L28P_1 CSL
FP_CLK IC9201 F15 IO_L22P_2 CLK_D
FP_CEL IC9201 F14 IO_L22N_2 CEL
FP_CEH IC9201 F13 IO_L21P_2 CBK
FP_SCSU IC9201 F12 IO_L21N_2 SCSU
FP_CPH IC9201 G16 IO CPH
FP_CPL IC9201 G15 IO_L24P_2 CEL2
VCCI
3.3V
FPGA3.3V
L9204 0
C9225 6.3V 10u
C9201 16V 47u
C9202 16V 0.1u
C9203 16V 0.1u
C9204 16V 0.1u
C9205 16V 0.1u
C9206 16V 0.1u
C9207 16V 0.1u
C9208 16V 0.1u
C9209 16V 0.1u
C9210 16V 0.1u
C9211 16V 0.1u
C9212 16V 0.1u
C9213 16V 0.1u
IC9201 H5
IC9201 J5
IC9201 G6
IC9201 H6
IC9201 J6
IC9201 K6
IC9201 F7
IC9201 L7
IC9201 E8
IC9201 F8
IC9201 L8
IC9201 M8
IC9201 E9
IC9201 F9
IC9201 L9
IC9201 M9
IC9201 F10
IC9201 L10
IC9201 G11
IC9201 H11
IC9201 J11
IC9201 K11
IC9201 H12
IC9201 J12
LVDS_INPUT
MN_RX0+ IC9201 C16 IO_L01P_2/VRN_2 LVDSA_RXAP
MN_RX0- IC9201 B16 IO_L01N_2/VRP_2 LVDSA_RXAN
MN_RX1+ IC9201 B14 IO_L01P_1/VRN_1 LVDSA_RXBP
MN_RX1- IC9201 A14 IO_L01N_1/VRP_1 LVDSA_RXBN
MN_RX2+ IC9201 B13 IO_L10P_1 LVDSA_RXCP
MN_RX2- IC9201 A13 IO_L10N_1/VREF_1 LVDSA_RXCN
MN_RX3+ IC9201 C11 IO_L29P_1 LVDSA_RXDP
MN_RX3- IC9201 B11 IO_L29N_1 LVDSA_RXDN
MN_CLK+ IC9201 D9 IO_L32P_1/GCLK4 LVDSA_CLKP
MN_CLK- IC9201 C9 IO_L32N_1/GCLK5 LVDSA_CLKN
SB_CLK+ IC9201 A8 IO_L32P_0/GCLK6 LVDSB_CLKP
SB_CLK- IC9201 B8 IO_L32N_0/GCLK7 LVDSB_CLKN
SB_RX0+ IC9201 B5 IO_L25P_0 LVDSB_RXAP
SB_RX0- IC9201 C5 IO_L25N_0 LVDSB_RXAN
SB_RX1+ IC9201 A4 IO_L01P_0/VRN_0 LVDSB_RXBP
SB_RX1- IC9201 B4 IO_L01N_0/VRP_0 LVDSB_RXBN
SB_RX2+ IC9201 B1 IO_L01P_7/VRN_7 LVDSB_RXCP
SB_RX2- IC9201 C1 IO_L01N_7/VRP_7 LVDSB_RXCN
SB_RX3+ IC9201 D2 IO_L17P_7 LVDSB_RXDP
SB_RX3- IC9201 D1 IO_L17N_7 LVDSB_RXDN
TEST PIN
IC9201 C12 IO_L27P_1 KME-TEST
IC9201 D8 IO_L31N_0 LVDS-TEST
DATA POWER F
FP_DMLR IC9201
FP_DMHR IC9201
FP_DSLR IC9201
FP_DSHR IC9201
FP_DMLL IC9201
FP_DMHL IC9201
FP_DSLL IC9201
FP_DSHL IC9201
D-BOARD T
BA
BB
BC
BD
BE
BF
BG

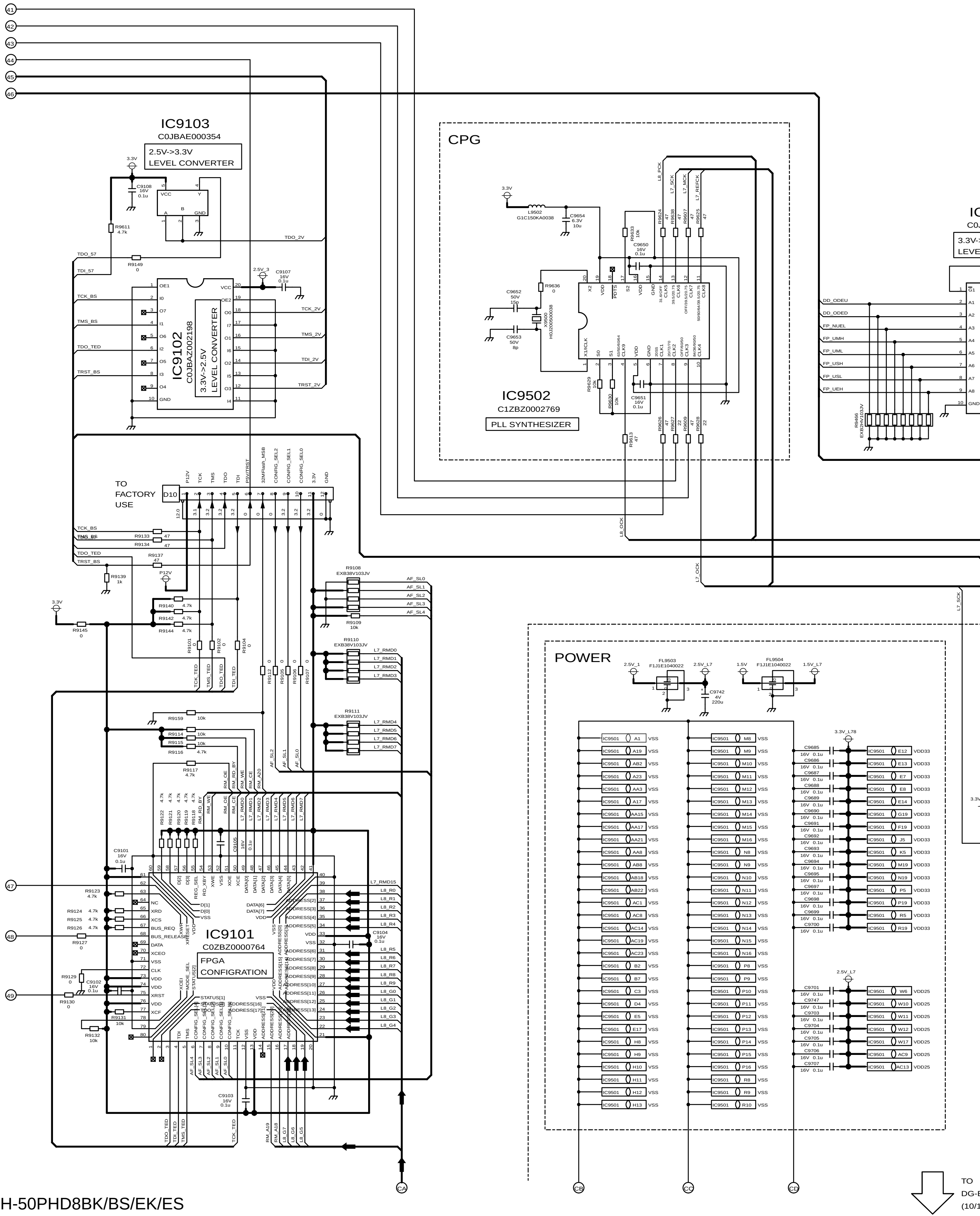


VCCINT
VCCAUX
DATA_DRIVER
SS_PULSE
CLK_INPUT
DATA POWER FEEDBACK
JTAG
OUTPUT_MAIN
D-BOARD TZTNP01YSSE (3/12)
IC9605
C0EBE0000066
RESET
R9271 EXB2HV820JV
R9272 EXB2HV820JV
R9273 EXB2HV820JV
R9274 47
R9275 47
R9276 22
C9696 16V 0.1u
3.3V
1.2V
2.5V_3
FPGA2.5V
L9205 J0JHC0000096
L9206 J0JHC0000096
L9204 0
TO
DG-BOARD
(9/12)
41
42
43
44
45
46
47
48
49
BH
BI
BJ
BK
BL
BN

TH-50PHD8BK/BS/EK/ES
D-Board (3 of 12) Schematic Diagram

23 24 25 26 27

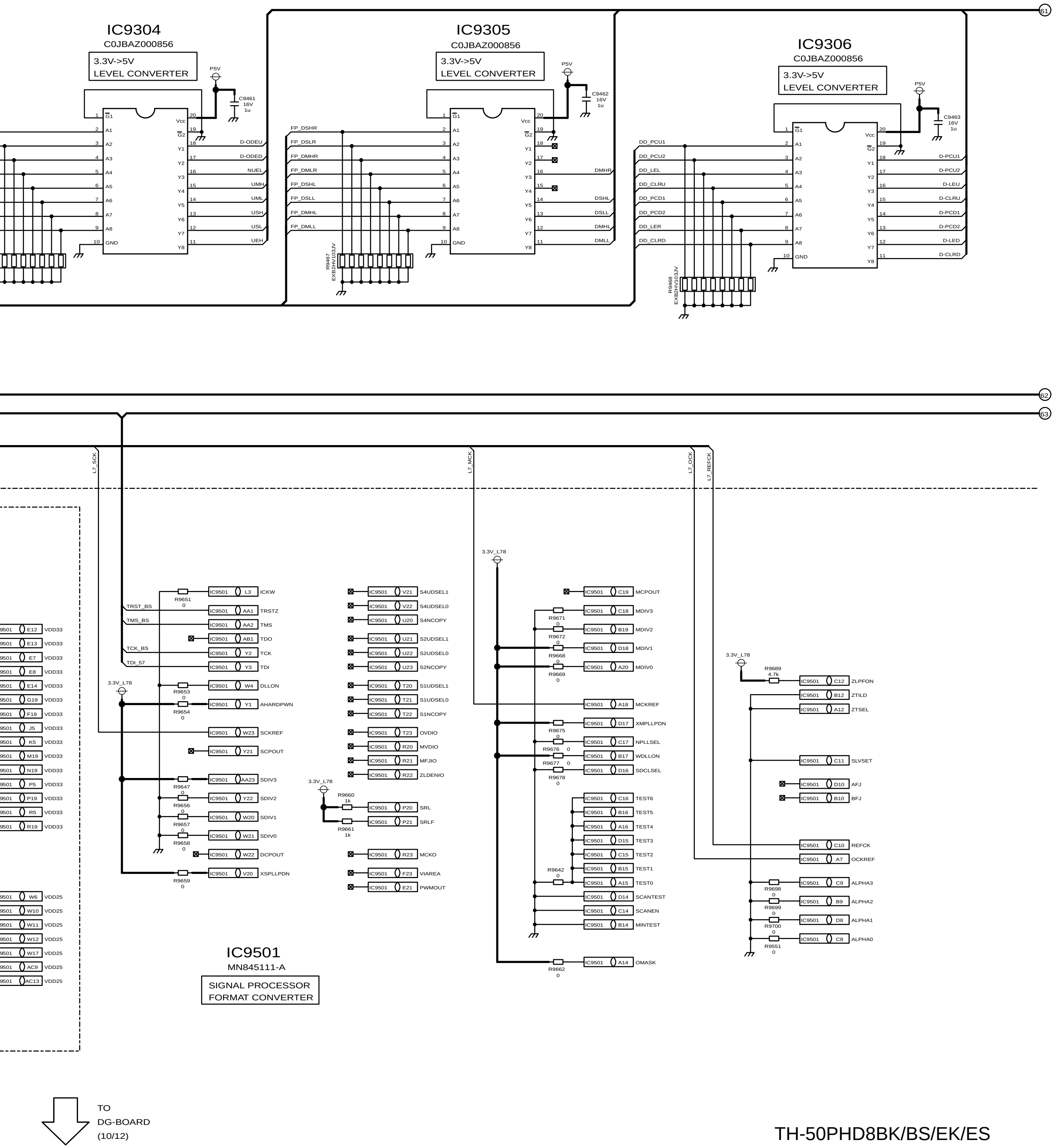
15.22. D-Board (4 of 12) Schematic Diagram


IC9103
C0JBAE000354
2.5V->3.3V
LEVEL CONVERTER
IC9102
C0JBAZ002198
3.3V->2.5V
LEVEL CONVERTER
CPG
IC9502
C1ZBZ0002769
PLL SYNTHESIZER
TO
FACTORY
USE
D10
IC9101
C0ZBZ0000764
FPGA
CONFIGRATION
POWER
TO

TH-50PHD8BK/BS/EK/ES
D-Board (4 of 12) Schematic Diagram

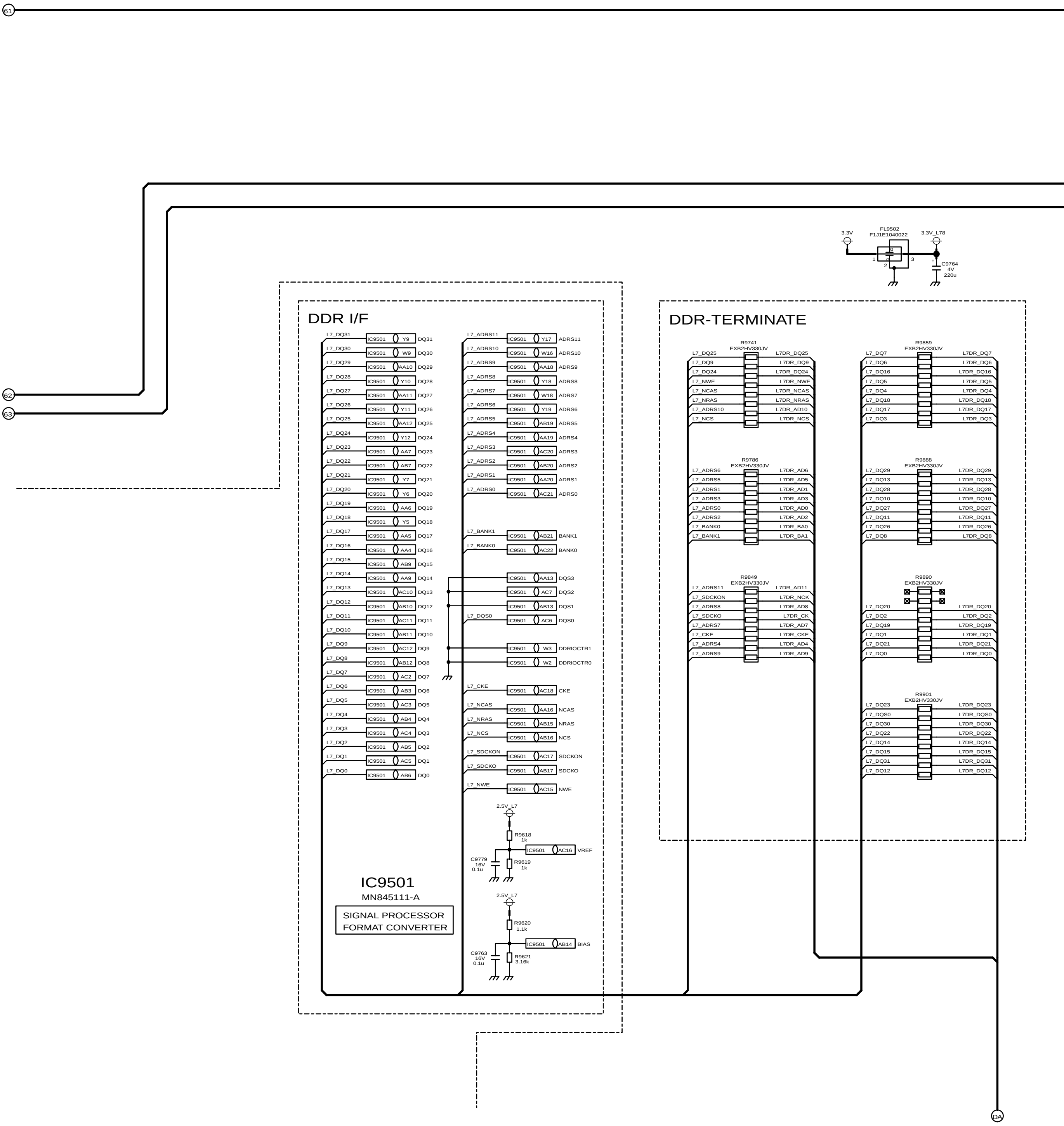
28 29 30 31 32

D-BOARD TZTNP01YSSE (4/12)


IC9304
C0JBAZ000856
3.3V->5V
LEVEL CONVERTER
IC9305
C0JBAZ000856
3.3V->5V
LEVEL CONVERTER
IC9306
C0JBAZ000856
3.3V->5V
LEVEL CONVERTER
P5V
C9461 16V 1u
C9462 16V 1u
C9463 16V 1u
D-ODEU
D-ODED
NUEL
UMH
UML
USH
USL
UEH
FP_DSHR
FP_DSLR
FP_DMHR
FP_DMLR
FP_DSHL
FP_DSLL
FP_DMHL
FP_DMLL
DMHR
DSHL
DSLL
DMHL
DMLL
R9467 EXB2HV103JV
R9468 EXB2HV103JV
DD_PCU1
DD_PCU2
DD_LEL
DD_CLRU
DD_PCD1
DD_PCD2
DD_LER
DD_CLRD
D-PCU1
D-PCU2
D-LEU
D-CLRU
D-PCD1
D-PCD2
D-LED
D-CLRD
61
62
63
L7_SCK
L7_MCK
L7_OCK
L7_REFCK
3.3V_L78
TRST_BS
TMS_BS
TCK_BS
TDI_57
ICKW
TRSTZ
TMS
TDO
TCK
TDI
DLLON
AHARDPWN
SCKREF
SCPOUT
SDIV3
SDIV2
SDIV1
SDIV0
DCPOUT
XSPLLPDN
S4UDSEL1
S4UDSEL0
S4NCOPY
S2UDSEL1
S2UDSEL0
S2NCOPY
S1UDSEL1
S1UDSEL0
S1NCOPY
OVDIO
MVDIO
MFJIO
ZLDENIO
SRL
SRLF
MCKO
VIAREA
PWMOUT
MCPOUT
MDIV3
MDIV2
MDIV1
MDIV0
MCKREF
XMPLLPDN
NPLLSEL
WDLLON
SDCLSEL
TEST6
TEST5
TEST4
TEST3
TEST2
TEST1
TEST0
SCANTEST
SCANEN
MINTEST
OMASK
ZLPFON
ZTILD
ZTSEL
SLVSET
AFJ
BFJ
REFCK
OCKREF
ALPHA3
ALPHA2
ALPHA1
ALPHA0
VDD33
VDD25
IC9501
MN845111-A
SIGNAL PROCESSOR
FORMAT CONVERTER
TO
DG-BOARD
(10/12)

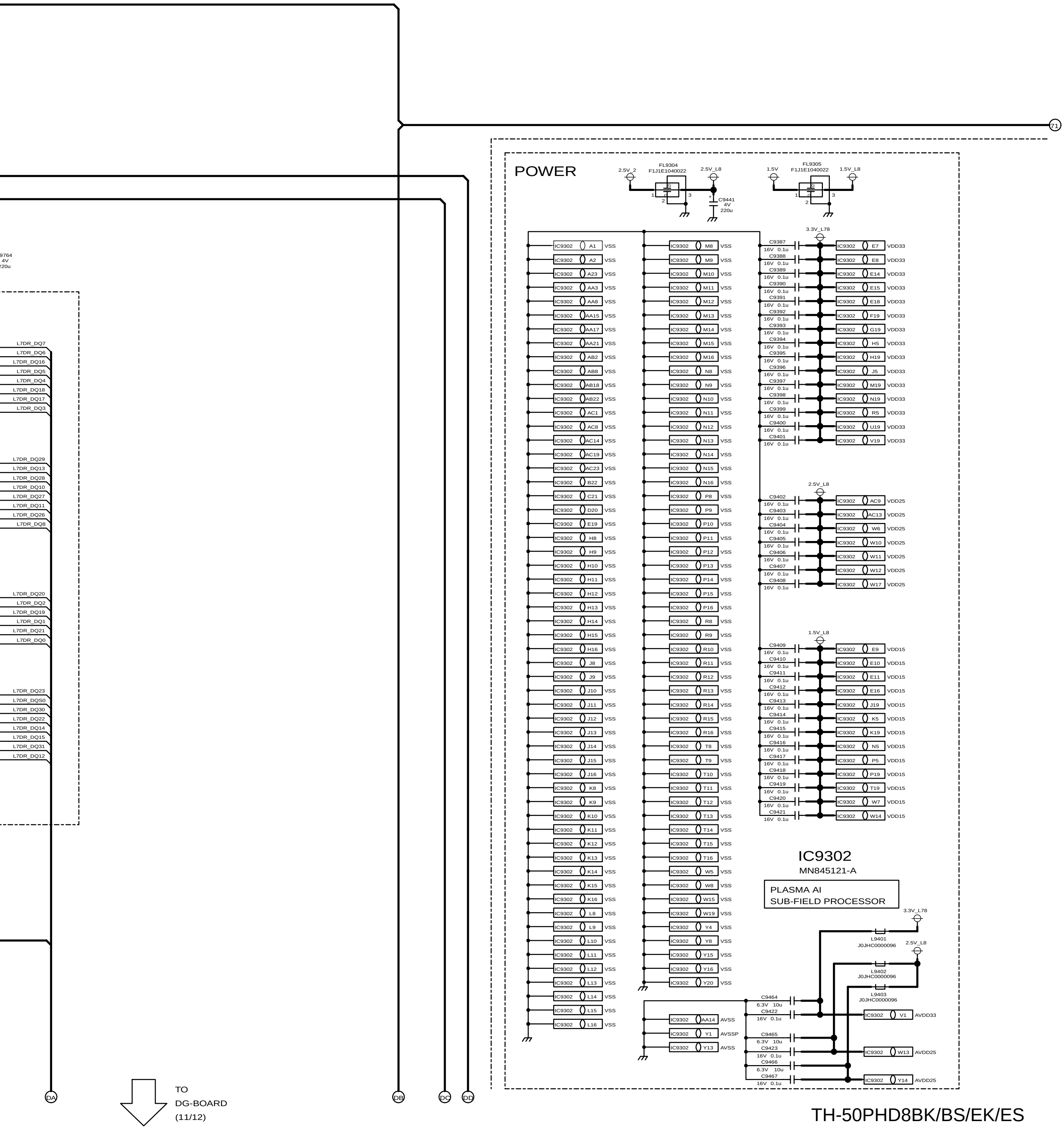
TH-50PHD8BK/BS/EK/ES
D-Board (4 of 12) Schematic Diagram

15.23. D-Board (5 of 12) Schematic Diagram



61
62
63
DDR I/F
DDR-TERMINATE
IC9501
MN845111-A
SIGNAL PROCESSOR
FORMAT CONVERTER
3.3V
FL9502
F1J1E1040022
3.3V_L78
C9764
4V
220u
R9741
EXB2HV330JV
R9786
EXB2HV330JV
R9849
EXB2HV330JV
R9859
EXB2HV330JV
R9888
EXB2HV330JV
R9890
EXB2HV330JV
R9901
EXB2HV330JV
2.5V_L7
R9618
1k
R9619
1k
C9779
16V
0.1u
VREF
R9620
1.1k
R9621
3.16k
C9763
16V
0.1u
BIAS
DDRIOCTR1
DDRIOCTR0
DA

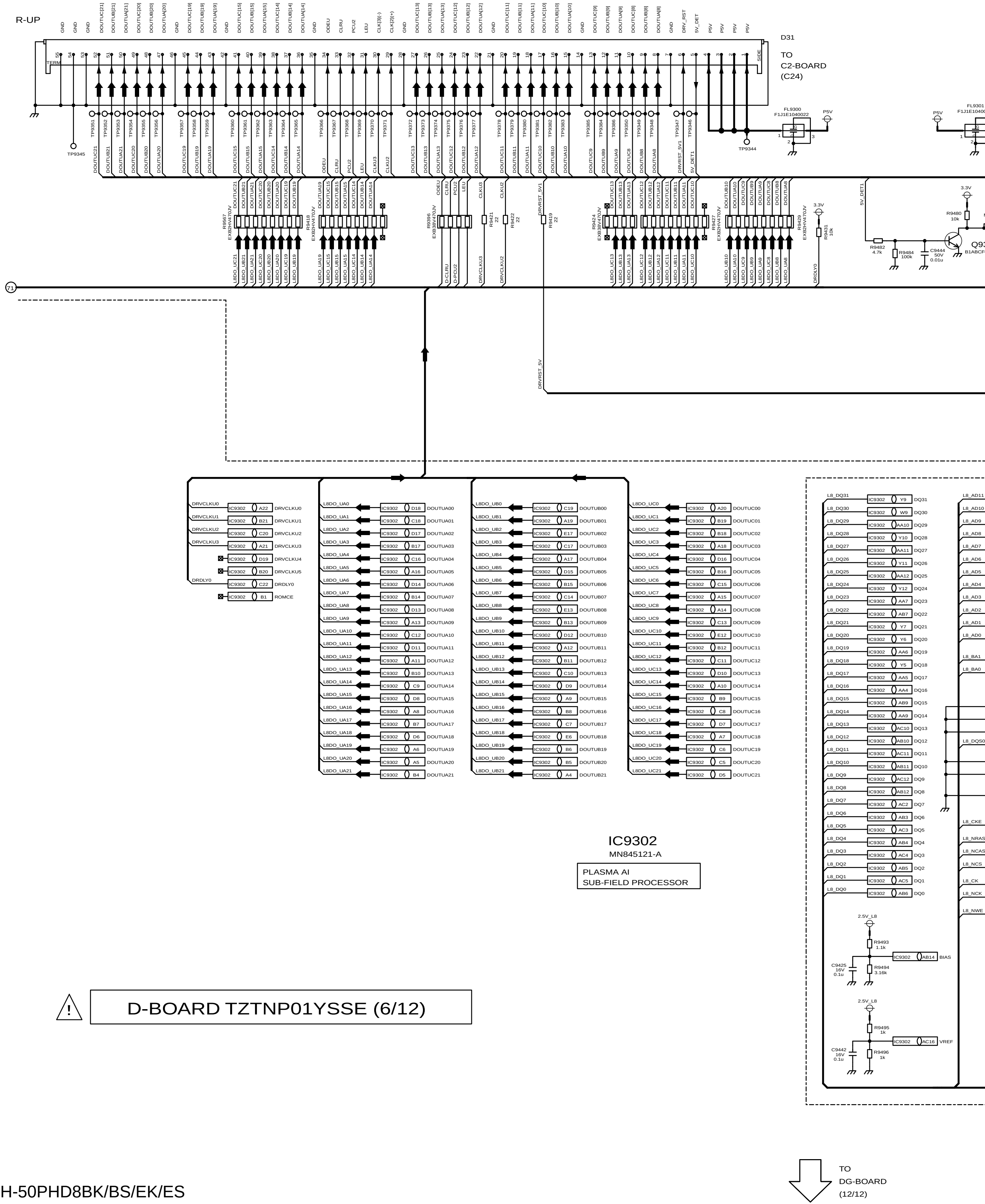
D-BOARD TZTNP01YSSE (5/12)


POWER
2.5V_2
FL9304
F1J1E1040022
2.5V_L8
C9441
4V
220u
1.5V
FL9305
F1J1E1040022
1.5V_L8
3.3V_L78
VSS
VDD33
VDD25
VDD15
AVSS
AVSSP
AVDD33
AVDD25
L9401
J0JHC0000096
L9402
J0JHC0000096
L9403
J0JHC0000096
C9464
6.3V 10u
C9465
C9466
C9467
16V 0.1u
IC9302
MN845121-A
PLASMA AI
SUB-FIELD PROCESSOR
L7DR_DQ7
L7DR_DQ6
L7DR_DQ16
L7DR_DQ5
L7DR_DQ4
L7DR_DQ18
L7DR_DQ17
L7DR_DQ3
L7DR_DQ29
L7DR_DQ13
L7DR_DQ28
L7DR_DQ10
L7DR_DQ27
L7DR_DQ11
L7DR_DQ26
L7DR_DQ8
L7DR_DQ20
L7DR_DQ2
L7DR_DQ19
L7DR_DQ1
L7DR_DQ21
L7DR_DQ0
L7DR_DQ23
L7DR_DQS0
L7DR_DQ30
L7DR_DQ22
L7DR_DQ14
L7DR_DQ15
L7DR_DQ31
L7DR_DQ12
71
DA
DB
DC
DD
TO
DG-BOARD
(11/12)

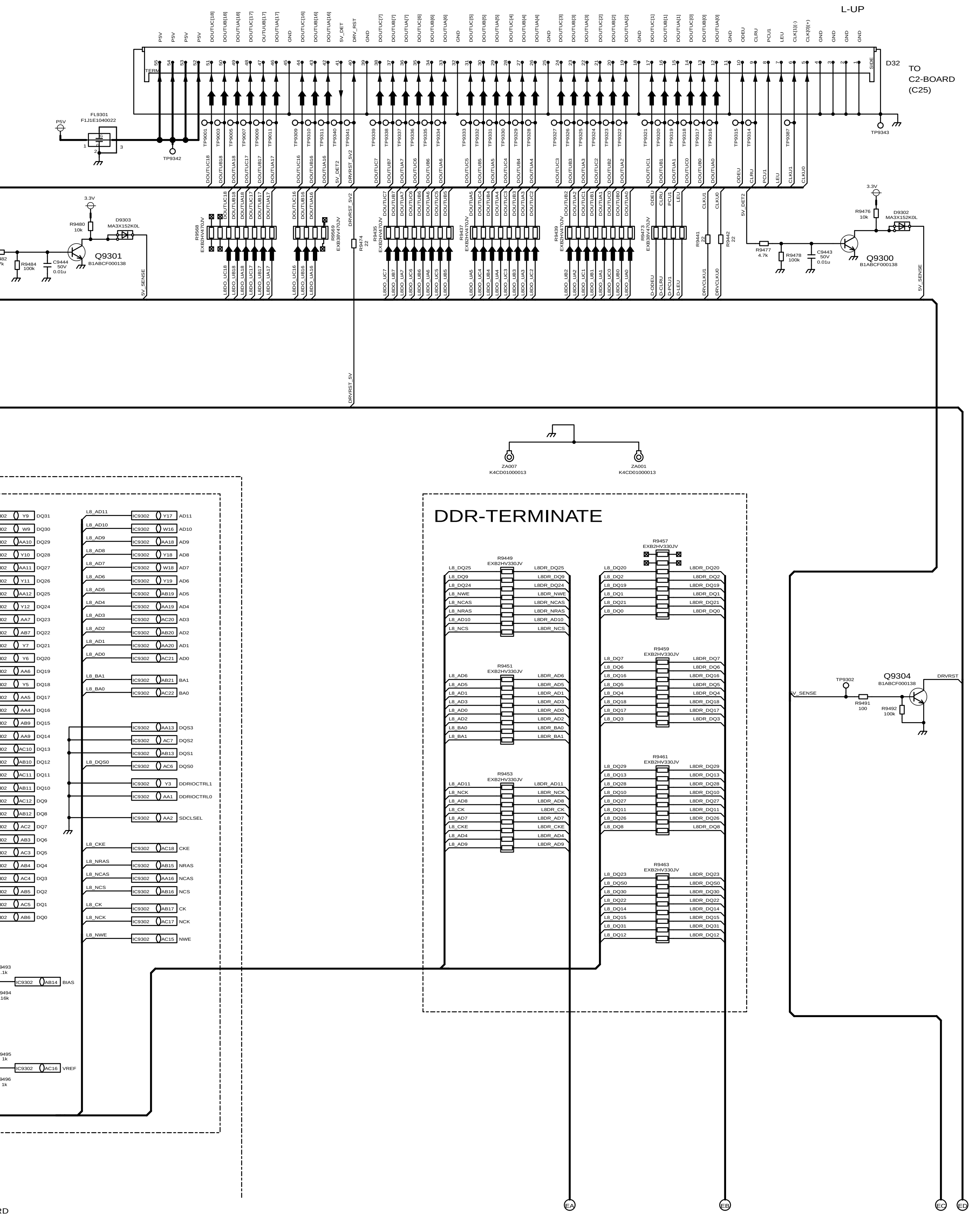
TH-50PHD8BK/BS/EK/ES
D-Board (5 of 12) Schematic Diagram

41 42 43 44 45

15.24. D-Board (6 of 12) Schematic Diagram


R-UP
D31
TO
C2-BOARD
(C24)
TERM
SIDE
TP9345
TP9344
FL9300
F1J1E1040022
FL9301
P5V
3.3V
R9480
10k
R9482
4.7k
R9484
100k
C9444
50V
0.01u
Q93
B1ABCF
R9567
EXB2HV470JV
R9418
EXB2HV470JV
R9936
EXB38V470JV
R9421
22
R9422
22
R9419
22
R9424
EXB38V470JV
R9427
EXB2HV470JV
R9429
EXB2HV470JV
R9431
10k
DRVRST_5V
5V_DET1
DRDLY0
71
IC9302
MN845121-A
PLASMA AI
SUB-FIELD PROCESSOR
2.5V_L8
R9493
1.1k
R9494
3.16k
C9425
16V
0.1u
BIAS
R9495
1k
R9496
1k
C9442
16V
0.1u
VREF
TO
DG-BOARD
(12/12)

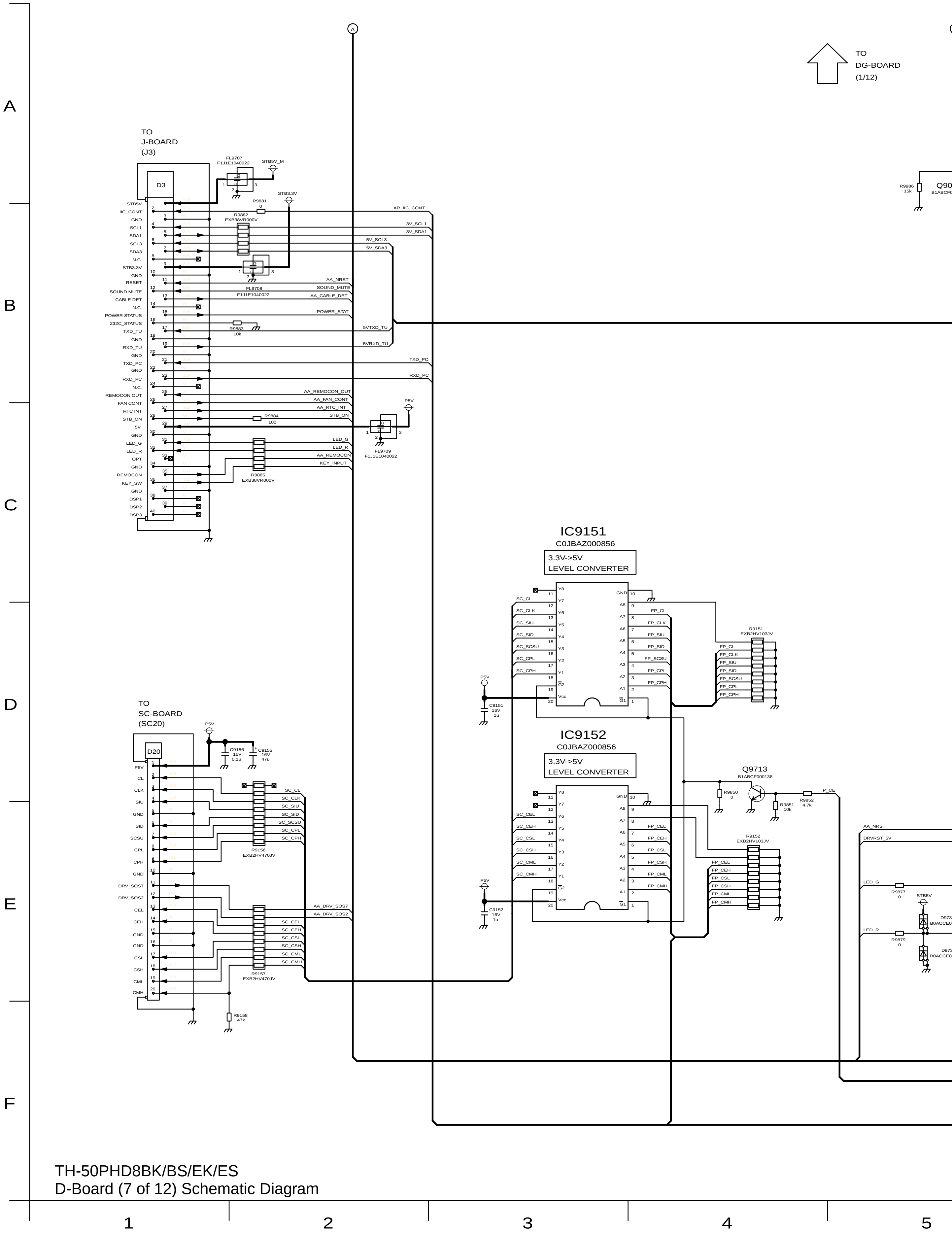
⚠ D-BOARD TZTNP01YSSE (6/12)


L-UP
D32
TO
C2-BOARD
(C25)
TERM
SIDE
FL9301
F1J1E1040022
P5V
TP9342
TP9343
3.3V
R9480
10k
D9303
MA3X152K0L
Q9301
B1ABCF000138
R9484
100k
C9444
50V
0.01u
5V_SENSE
DRVRST_5V
R9476
10k
D9302
MA3X152K0L
R9477
4.7k
R9478
100k
C9443
50V
0.01u
Q9300
B1ABCF000138
ZA007
K4CD01000013
ZA001
K4CD01000013
DDR-TERMINATE
R9449
EXB2HV330JV
R9451
EXB2HV330JV
R9453
EXB2HV330JV
R9457
EXB2HV330JV
R9459
EXB2HV330JV
R9461
EXB2HV330JV
R9463
EXB2HV330JV
TP9302
Q9304
B1ABCF000138
DRVRST
R9491
100
R9492
100k
BIAS
VREF
EA
EB
EC
ED
RD

TH-50PHD8BK/BS/EK/ES
D-Board (6 of 12) Schematic Diagram

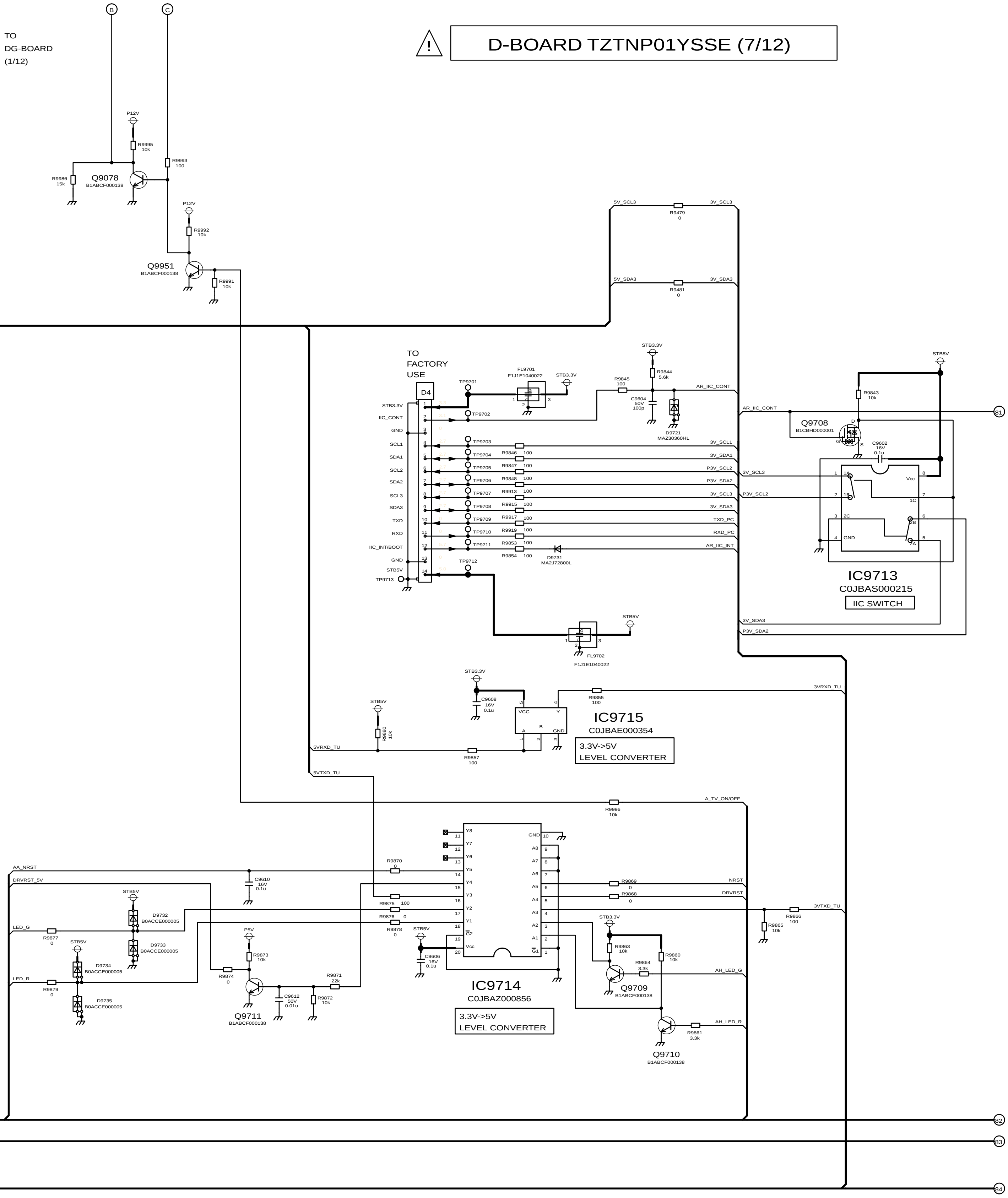
50	51	52	53	54

15.25. D-Board (7 of 12) Schematic Diagram


A
B
C
D
E
F
1
2
3
4
5
TO
DG-BOARD
(1/12)
TO
J-BOARD
(J3)
D3
FL9707
F1J1E1040022
STB5V_M
STB3.3V
R9881
0
R9882
EXB38VR000V
FL9708
F1J1E1040022
R9883
10k
R9884
100
FL9709
F1J1E1040022
R9885
EXB38VR000V
P5V
STB5V
IIC_CONT
GND
SCL1
SDA1
SCL3
SDA3
N.C.
STB3.3V
RESET
SOUND MUTE
CABLE DET
POWER STATUS
232C_STATUS
TXD_TU
RXD_TU
TXD_PC
RXD_PC
REMOCON OUT
FAN CONT
RTC INT
STB_ON
5V
LED_G
LED_R
OPT
REMOCON
KEY_SW
DSP1
DSP2
DSP3
AR_IIC_CONT
3V_SCL1
3V_SDA1
5V_SCL3
5V_SDA3
AA_NRST
SOUND_MUTE
AA_CABLE_DET
POWER_STAT
5VTXD_TU
5VRXD_TU
TXD_PC
RXD_PC
AA_REMOCON_OUT
AA_FAN_CONT
AA_RTC_INT
STB_ON
LED_G
LED_R
AA_REMOCON
KEY_INPUT
R9986
15k
Q90
B1ABCF0
IC9151
C0JBAZ000856
3.3V->5V
LEVEL CONVERTER
IC9152
C0JBAZ000856
3.3V->5V
LEVEL CONVERTER
Y8
Y7
Y6
Y5
Y4
Y3
Y2
Y1
G2
Vcc
GND
A8
A7
A6
A5
A4
A3
A2
A1
G1
SC_CL
SC_CLK
SC_SIU
SC_SID
SC_SCSU
SC_CPL
SC_CPH
FP_CL
FP_CLK
FP_SIU
FP_SID
FP_SCSU
FP_CPL
FP_CPH
R9151
EXB2HV103JV
C9151
16V
1u
C9152
16V
1u
SC_CEL
SC_CEH
SC_CSL
SC_CSH
SC_CML
SC_CMH
FP_CEL
FP_CEH
FP_CSL
FP_CSH
FP_CML
FP_CMH
R9152
EXB2HV103JV
Q9713
B1ABCF000138
R9850
0
R9851
10k
R9852
4.7k
P_CE
AA_NRST
DRVRST_5V
LED_G
R9877
0
STB5V
D973
B0ACCE0
LED_R
R9879
0
D973
B0ACCE0
TO
SC-BOARD
(SC20)
D20
C9156
16V
0.1u
C9155
16V
47u
P5V
CL
CLK
SIU
GND
SID
SCSU
CPL
CPH
DRV_SOS7
DRV_SOS2
CEL
CEH
CSL
CSH
CML
CMH
R9156
EXB2HV470JV
R9157
EXB2HV470JV
R9158
47k
AA_DRV_SOS7
AA_DRV_SOS2

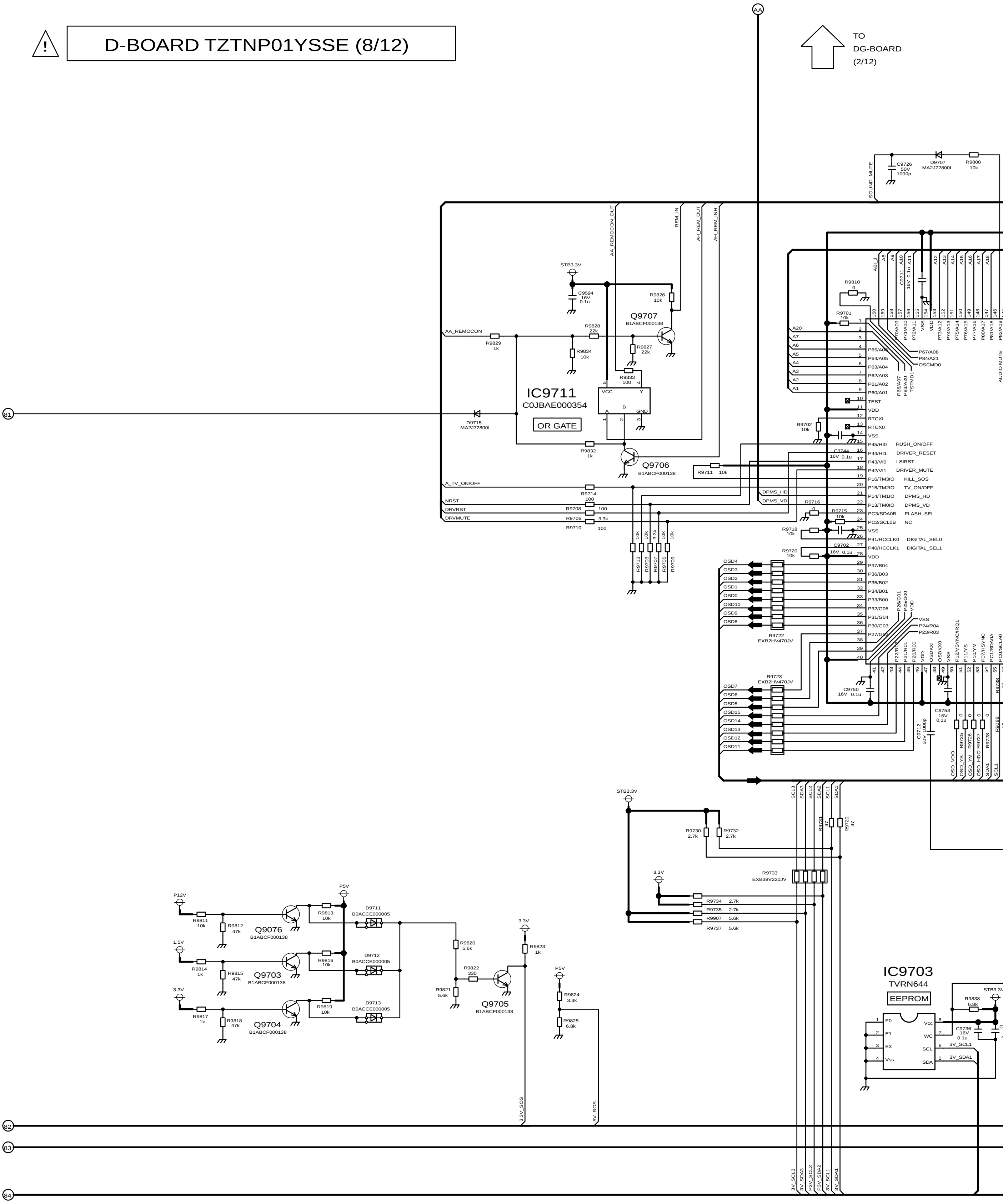
TH-50PHD8BK/BS/EK/ES
D-Board (7 of 12) Schematic Diagram

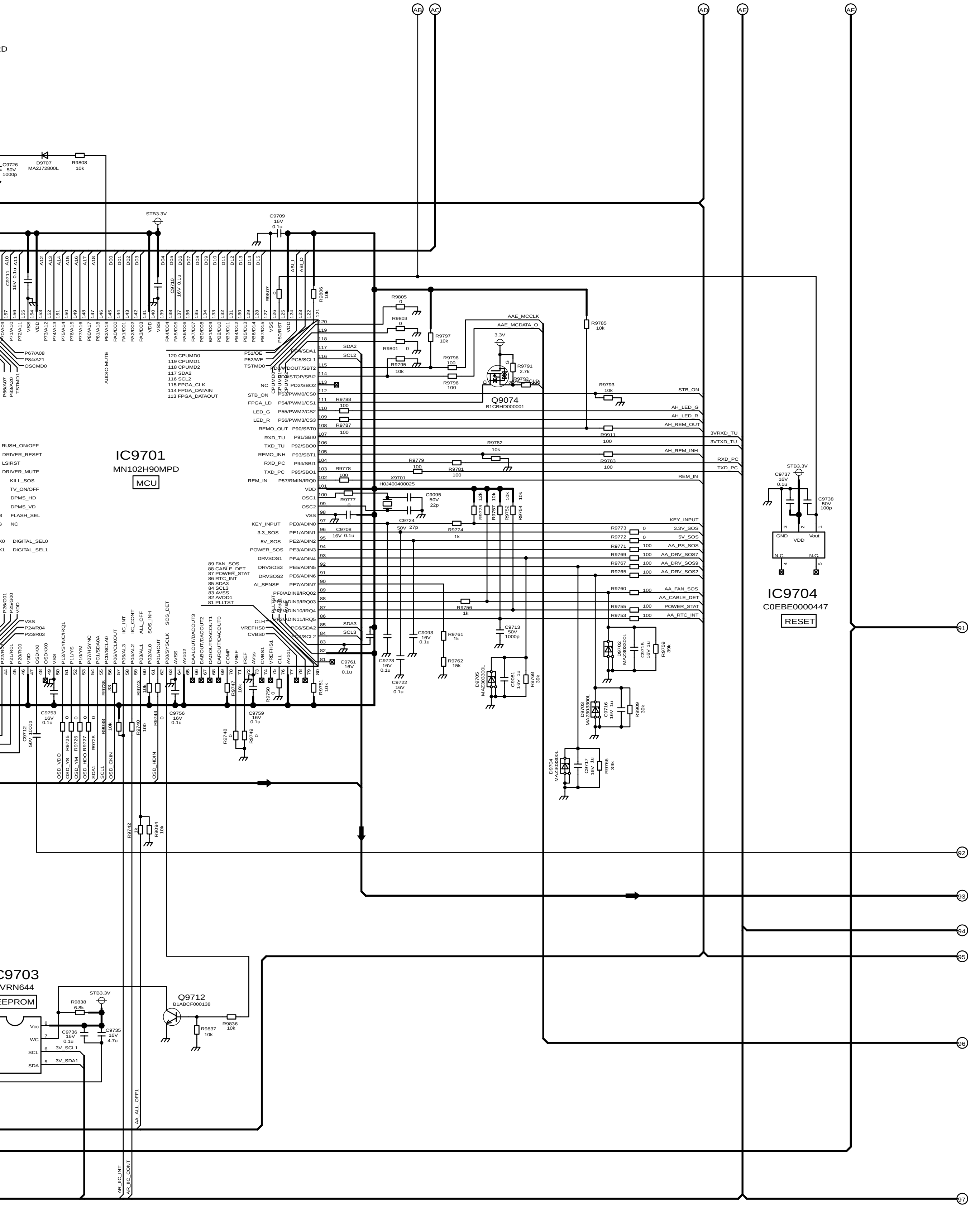
D-BOARD TZTNP01YSSE (7/12)


TO
DG-BOARD
(1/12)
B
C
P12V
R9995
10k
R9993
100
R9986
15k
Q9078
B1ABCF000138
P12V
R9992
10k
Q9951
B1ABCF000138
R9991
10k
5V_SCL3
R9479
0
3V_SCL3
5V_SDA3
R9481
0
3V_SDA3
TO
FACTORY
USE
D4
STB3.3V
IIC_CONT
GND
SCL1
SDA1
SCL2
SDA2
SCL3
SDA3
TXD
RXD
IIC_INT/BOOT
GND
STB5V
TP9713
TP9701
TP9702
TP9703
TP9704
TP9705
TP9706
TP9707
TP9708
TP9709
TP9710
TP9711
TP9712
FL9701
F1J1E1040022
STB3.3V
STB3.3V
R9844
5.6k
R9845
100
C9604
50V
100p
D9721
MAZ30360HL
AR_IIC_CONT
R9846 100
R9847 100
R9848 100
R9913 100
R9915 100
R9917 100
R9919 100
R9853 100
R9854 100
D9731
MA2J72800L
3V_SCL1
3V_SDA1
P3V_SCL2
P3V_SDA2
3V_SCL3
3V_SDA3
TXD_PC
RXD_PC
AR_IIC_INT
STB5V
R9843
10k
AR_IIC_CONT
81
Q9708
B1CBHD000001
D
G
S
C9602
16V
0.1u
3V_SCL3
P3V_SCL2
1A
1B
2C
GND
Vcc
1C
2B
2A
IC9713
C0JBAS000215
IIC SWITCH
3V_SDA3
P3V_SDA2
STB5V
FL9702
F1J1E1040022
STB3.3V
C9608
16V
0.1u
STB5V
R9880
10k
VCC
Y
B
A
GND
R9855
100
3VRXD_TU
IC9715
C0JBAE000354
3.3V->5V
LEVEL CONVERTER
5VRXD_TU
R9857
100
5VTXD_TU
A_TV_ON/OFF
R9996
10k
AA_NRST
DRVRST_5V
C9610
16V
0.1u
STB5V
D9732
B0ACCE000005
D9733
B0ACCE000005
LED_G
R9877
0
STB5V
D9734
B0ACCE000005
LED_R
R9879
0
D9735
B0ACCE000005
P5V
R9873
10k
R9874
0
Q9711
B1ABCF000138
C9612
50V
0.01u
R9871
22k
R9872
10k
R9870
0
R9875 100
R9876 0
R9878
0
STB5V
C9606
16V
0.1u
Y8
Y7
Y6
Y5
Y4
Y3
Y2
Y1
G2
Vcc
GND
A8
A7
A6
A5
A4
A3
A2
A1
G1
IC9714
C0JBAZ000856
3.3V->5V
LEVEL CONVERTER
R9869
0
NRST
R9868
0
DRVRST
R9866
100
3VTXD_TU
R9865
10k
STB3.3V
R9863
10k
R9860
10k
R9864
3.3k
AH_LED_G
Q9709
B1ABCF000138
AH_LED_R
R9861
3.3k
Q9710
B1ABCF000138
82
83
84

TH-50PHD8BK/BS/EK/ES
D-Board (7 of 12) Schematic Diagram

15.26. D-Board (8 of 12) Schematic Diagram

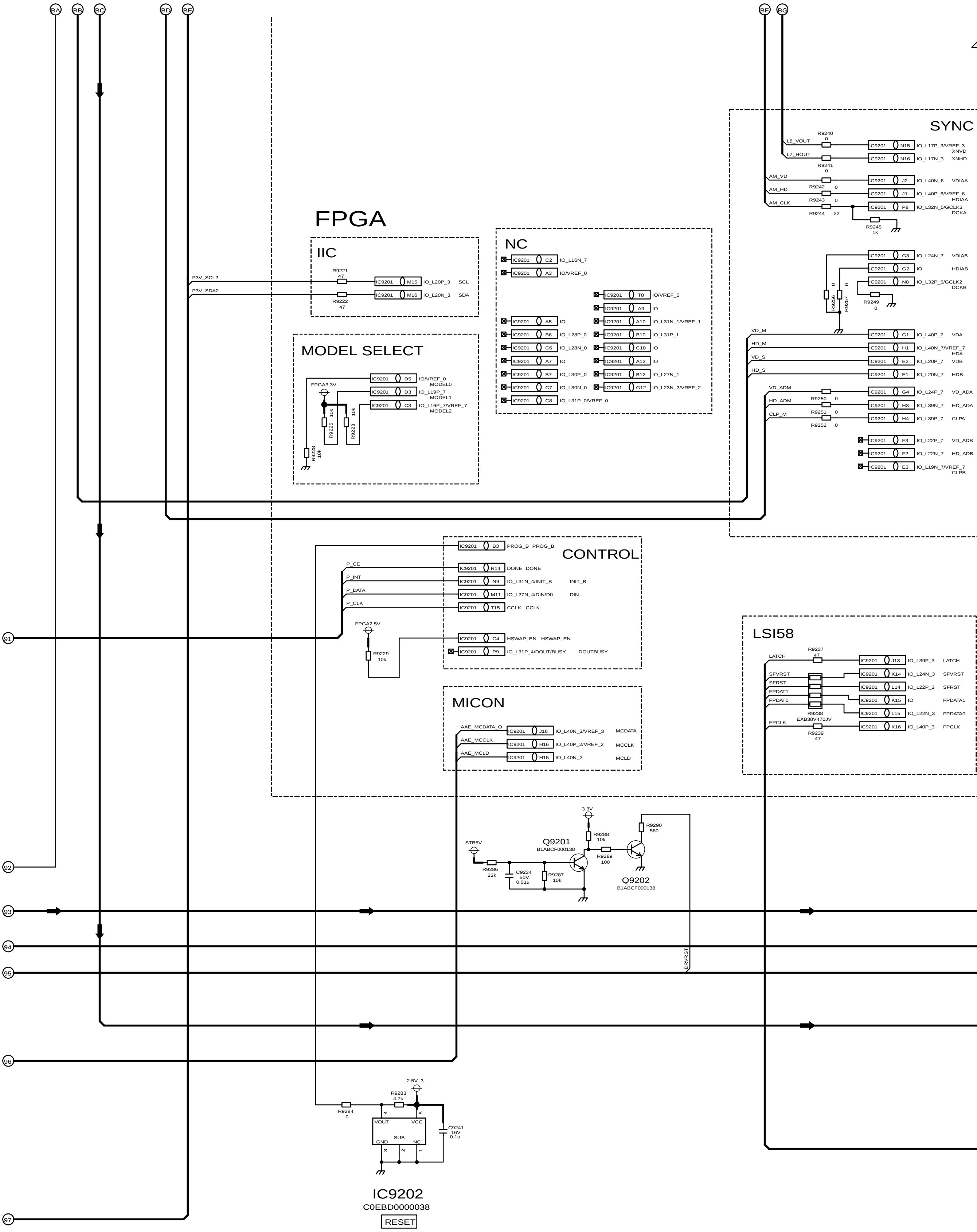

D-BOARD TZTNP01YSSE (8/12)
TO DG-BOARD (2/12)
AA
B1
B2
B3
B4
IC9711
C0JBAE000354
OR GATE
VCC
GND
Q9707
B1ABCF000138
Q9706
B1ABCF000138
D9715
MA2J72800L
D9707
MA2J72800L
C9726 50V 1000p
R9808 10k
SOUND_MUTE
STB3.3V
C9594 16V 0.1u
R9826 10k
R9828 22k
R9829 1k
R9834 10k
R9827 22k
R9833 100
R9832 1k
R9711 10k
R9714 100
R9708 100
R9706 3.3k
R9710 100
R9713
R9707
R9703
R9705
R9709
AA_REMOCON
AA_REMOCON_OUT
REM_IN
AH_REM_OUT
AH_REM_INH
A_TV_ON/OFF
NRST
DRVRST
DRVMUTE
DPMS_HD
DPMS_VD
R9810 0
R9701 10k
R9702 10k
C9744 16V 0.1u
C9702 16V 0.1u
R9716
R9715 10k
R9718 10k
R9720 10k
IC9711 16V 0.1u
A20
A7
A6
A5
A4
A3
A2
A1
P65/A06
P64/A05
P63/A04
P62/A03
P61/A02
P60/A01
TEST
VDD
RTCXI
RTCXO
VSS
P45/HI0
P44/HI1
P43/VI0
P42/VI1
P16/TM3IO
P15/TM2IO
P14/TM1IO
P13/TM0IO
PC3/SDA0B
PC2/SCL0B
VSS
P41/HCCLK0
P40/HCCLK1
VDD
P37/B04
P36/B03
P35/B02
P34/B01
P33/B00
P32/G05
P31/G04
P30/G03
P27/G02
RUSH_ON/OFF
DRIVER_RESET
LSIRST
DRIVER_MUTE
KILL_SOS
TV_ON/OFF
DPMS_HD
DPMS_VD
FLASH_SEL
NC
DIGITAL_SEL0
DIGITAL_SEL1
P67/A08
P84/A21
OSCMD0
AUDIO MUTE
OSD0
OSD1
OSD2
OSD3
OSD4
OSD5
OSD6
OSD7
OSD8
OSD9
OSD10
OSD11
OSD12
OSD13
OSD14
OSD15
R9722
EXB2HV470JV
R9723
EXB2HV470JV
C9750 16V 0.1u
C9753 16V 0.1u
C9712 50V 1000p
R9725
R9726
R9727
R9728
OSD_VDO
OSD_YS
OSD_YM
OSD_HDO
SDA1
SCL1
SCL3
SDA3
SCL2
SDA2
SCL1
SDA1
R9730 2.7k
R9732 2.7k
R9731 47
R9729 47
R9733
EXB38V220JV
3.3V
R9734 2.7k
R9735 2.7k
R9907 5.6k
R9737 5.6k
IC9703
TVRN644
EEPROM
E0
E1
E3
Vss
Vcc
WC
SCL
SDA
R9838 6.8k
C9736 16V 0.1u
3V_SCL1
3V_SDA1
P12V
1.5V
3.3V
P5V
R9811 10k
R9812 47k
Q9076
B1ABCF000138
R9813 10k
D9711
B0ACCE000005
R9814 1k
R9815 47k
Q9703
B1ABCF000138
R9816 10k
D9712
B0ACCE000005
R9817 1k
R9818 47k
Q9704
B1ABCF000138
R9819 10k
D9713
B0ACCE000005
R9820 5.6k
R9821 5.6k
R9822 330
Q9705
B1ABCF000138
R9823 1k
R9824 3.3k
R9825 6.8k
3.3V_SOS
5V_SOS
3V_SCL3
3V_SDA3
P3V_SCL2
P3V_SDA2
3V_SCL1
3V_SDA1

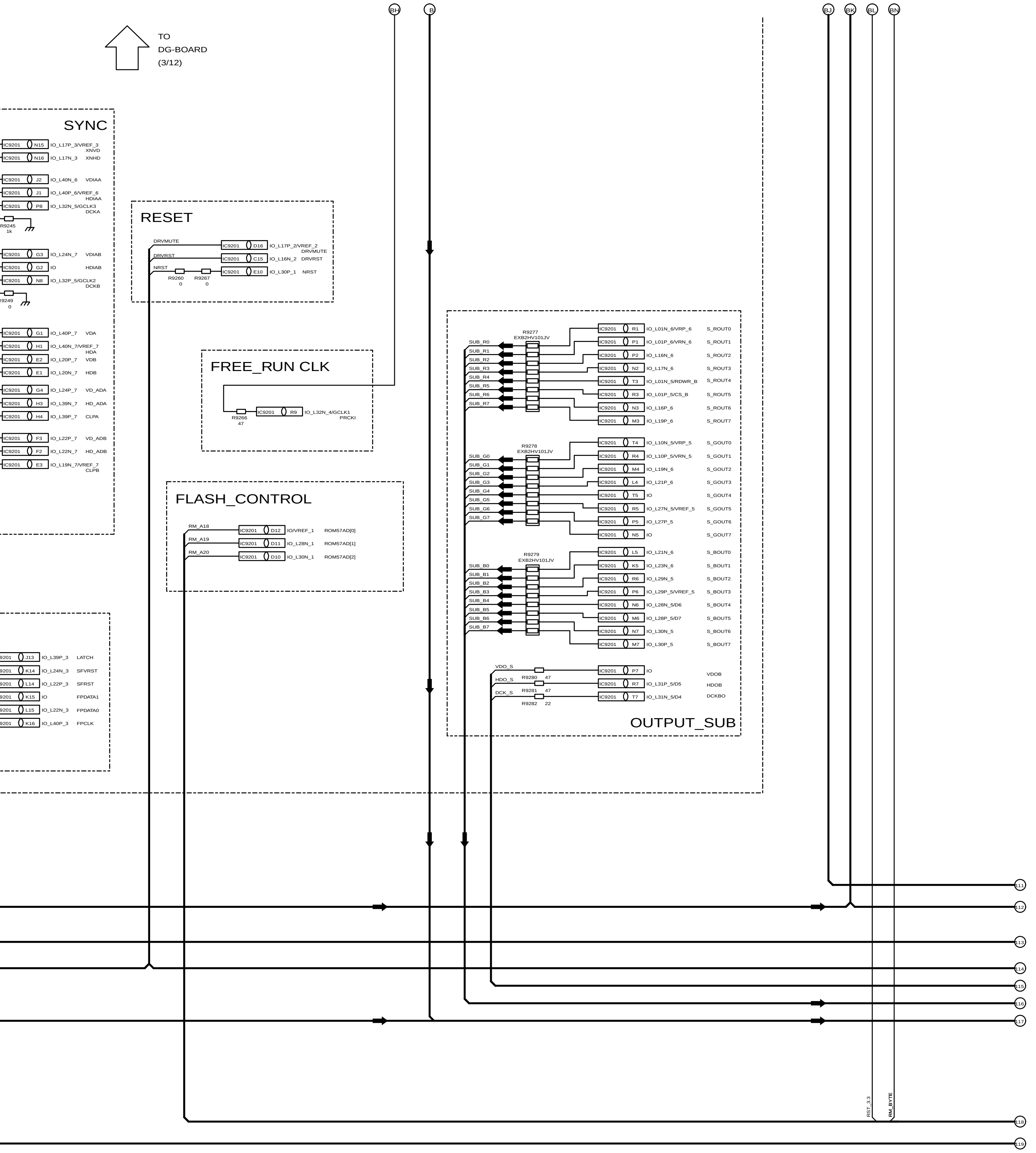

AB
AC
AD
AE
AF
C9726 50V 1000p
D9707 MA2J72800L
R9808 10k
STB3.3V
C9709 16V 0.1u
IC9701
MN102H90MPD
MCU
Q9074
B1CBHD000001
X9701
H0J400400025
IC9704
C0EBE0000447
RESET
GND
VDD
Vout
N.C
STB_ON
AH_LED_G
AH_LED_R
AH_REM_OUT
3VRXD_TU
3VTXD_TU
AH_REM_INH
RXD_PC
TXD_PC
REM_IN
KEY_INPUT
3.3V_SOS
5V_SOS
AA_PS_SOS
AA_DRV_SOS7
AA_DRV_SOS9
AA_DRV_SOS2
AA_FAN_SOS
AA_CABLE_DET
POWER_STAT
AA_RTC_INT
AAE_MCCLK
AAE_MCDATA_O
SDA2
SCL2
SDA3
SCL3
D9705 MAZ30330OL
D9703 MAZ30330OL
D9702 MAZ30330OL
D9704 MAZ30330OL
C9737 16V 0.1u
C9738 50V 100p
C9095 50V 22p
C9724 50V 27p
C9713 50V 1000p
IC9703
VRN644
EEPROM
Vcc
WC
SCL
SDA
3V_SCL1
3V_SDA1
Q9712
B1ABCF000138
R9838 6.8k
C9736 16V 0.1u
C9735 16V 4.7u
R9836 10k
R9837 10k
OSD_VDO
OSD_YS
OSD_YM
OSD_HDO
SDA1
SCL1
OSD_CKIN
OSD_HDIN
AA_ALL_OFF1
AR_IIC_INT
AR_IIC_CONT
AUDIO MUTE
91
92
93
94
95
96
97

TH-50PHD8BK/BS/EK/ES
D-Board (8 of 12) Schematic Diagram

14 15 16 17 18

15.27. D-Board (9 of 12) Schematic Diagram


BA
BB
BC
BD
BE
BF
BG
FPGA
IIC
P3V_SCL2
P3V_SDA2
R9221 47
R9222 47
IC9201 M15 IO_L20P_3 SCL
IC9201 M16 IO_L20N_3 SDA
MODEL SELECT
FPGA3.3V
IC9201 D5 IO/VREF_0 MODEL0
IC9201 D3 IO_L19P_7 MODEL1
IC9201 C3 IO_L16P_7/VREF_7 MODEL2
R9225 10k
R9223 10k
R9228 10k
NC
IC9201 C2 IO_L16N_7
IC9201 A3 IO/VREF_0
IC9201 T8 IO/VREF_5
IC9201 A9 IO
IC9201 A5 IO
IC9201 A10 IO_L31N_1/VREF_1
IC9201 B6 IO_L28P_0
IC9201 B10 IO_L31P_1
IC9201 C6 IO_L28N_0
IC9201 C10 IO
IC9201 A7 IO
IC9201 A12 IO
IC9201 B7 IO_L30P_0
IC9201 B12 IO_L27N_1
IC9201 C7 IO_L30N_0
IC9201 G12 IO_L23N_2/VREF_2
IC9201 C8 IO_L31P_0/VREF_0
SYNC
L8_VOUT
L7_HOUT
R9240 0
R9241 0
IC9201 N15 IO_L17P_3/VREF_3 XNVD
IC9201 N16 IO_L17N_3 XNHD
AM_VD
AM_HD
AM_CLK
R9242 0
R9243 0
R9244 22
IC9201 J2 IO_L40N_6 VDIAA
IC9201 J1 IO_L40P_6/VREF_6 HDIAA
IC9201 P8 IO_L32N_5/GCLK3 DCKA
R9245 1k
IC9201 G3 IO_L24N_7 VDIAB
IC9201 G2 IO HDIAB
IC9201 N8 IO_L32P_5/GCLK2 DCKB
R9256 0
R9257 0
R9249 0
VD_M
HD_M
VD_S
HD_S
IC9201 G1 IO_L40P_7 VDA
IC9201 H1 IO_L40N_7/VREF_7 HDA
IC9201 E2 IO_L20P_7 VDB
IC9201 E1 IO_L20N_7 HDB
VD_ADM
HD_ADM
CLP_M
R9250 0
R9251 0
R9252 0
IC9201 G4 IO_L24P_7 VD_ADA
IC9201 H3 IO_L39N_7 HD_ADA
IC9201 H4 IO_L39P_7 CLPA
IC9201 F3 IO_L22P_7 VD_ADB
IC9201 F2 IO_L22N_7 HD_ADB
IC9201 E3 IO_L19N_7/VREF_7 CLPB
CONTROL
IC9201 B3 PROG_B PROG_B
P_CE
P_INT
P_DATA
P_CLK
IC9201 R14 DONE DONE
IC9201 N9 IO_L31N_4/INIT_B INIT_B
IC9201 M11 IO_L27N_4/DIN/D0 DIN
IC9201 T15 CCLK CCLK
FPGA2.5V
R9229 10k
IC9201 C4 HSWAP_EN HSWAP_EN
IC9201 P9 IO_L31P_4/DOUT/BUSY DOUTBUSY
MICON
AAE_MCDATA_O
AAE_MCCLK
AAE_MCLD
IC9201 J16 IO_L40N_3/VREF_3 MCDATA
IC9201 H16 IO_L40P_2/VREF_2 MCCLK
IC9201 H15 IO_L40N_2 MCLD
LSI58
LATCH
SFVRST
SFRST
FPDAT1
FPDAT0
FPCLK
R9237 47
R9238 EXB38V470JV
R9239 47
IC9201 J13 IO_L39P_3 LATCH
IC9201 K14 IO_L24N_3 SFVRST
IC9201 L14 IO_L22P_3 SFRST
IC9201 K15 IO FPDATA1
IC9201 L15 IO_L22N_3 FPDATA0
IC9201 K16 IO_L40P_3 FPCLK
3.3V
STB5V
R9290 560
R9288 10k
R9289 100
Q9201 B1ABCF000138
Q9202 B1ABCF000138
R9286 22k
C9234 50V 0.01u
R9287 10k
DRVRST
91
92
93
94
95
96
97
2.5V_3
R9283 4.7k
R9284 0
VOUT
VCC
SUB
GND
NC
C9241 16V 0.1u
IC9202
C0EBD0000038
RESET

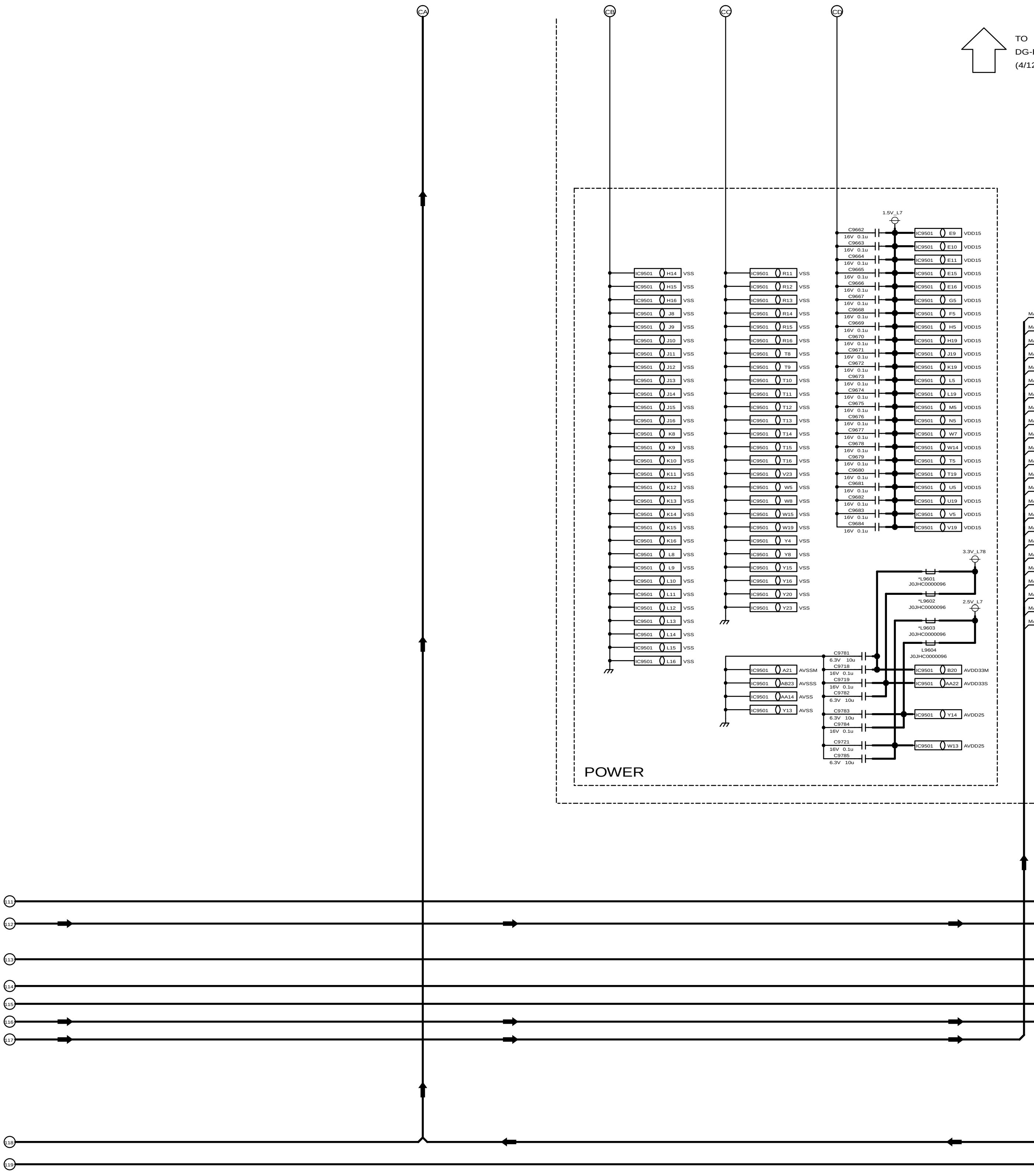

TO
DG-BOARD
(3/12)
BH
B
BJ
BK
BL
BN
SYNC
IC9201 N15 IO_L17P_3/VREF_3 XNVD
IC9201 N16 IO_L17N_3 XNHD
IC9201 J2 IO_L40N_6 VDIAA
IC9201 J1 IO_L40P_6/VREF_6 HDIAA
IC9201 P8 IO_L32N_5/GCLK3 DCKA
R9245 1k
IC9201 G3 IO_L24N_7 VDIAB
IC9201 G2 IO HDIAB
IC9201 N8 IO_L32P_5/GCLK2 DCKB
R9249 0
IC9201 G1 IO_L40P_7 VDA
IC9201 H1 IO_L40N_7/VREF_7 HDA
IC9201 E2 IO_L20P_7 VDB
IC9201 E1 IO_L20N_7 HDB
IC9201 G4 IO_L24P_7 VD_ADA
IC9201 H3 IO_L39N_7 HD_ADA
IC9201 H4 IO_L39P_7 CLPA
IC9201 F3 IO_L22P_7 VD_ADB
IC9201 F2 IO_L22N_7 HD_ADB
IC9201 E3 IO_L19N_7/VREF_7 CLPB
RESET
DRVMUTE
DRVRST
NRST
R9260 0
R9267 0
IC9201 D16 IO_L17P_2/VREF_2 DRVMUTE
IC9201 C15 IO_L16N_2 DRVRST
IC9201 E10 IO_L30P_1 NRST
FREE_RUN CLK
R9266 47
IC9201 R9 IO_L32N_4/GCLK1 PRCKI
FLASH_CONTROL
RM_A18
RM_A19
RM_A20
IC9201 D12 IO/VREF_1 ROM57AD[0]
IC9201 D11 IO_L28N_1 ROM57AD[1]
IC9201 D10 IO_L30N_1 ROM57AD[2]
9201 J13 IO_L39P_3 LATCH
9201 K14 IO_L24N_3 SFVRST
9201 L14 IO_L22P_3 SFRST
9201 K15 IO FPDATA1
9201 L15 IO_L22N_3 FPDATA0
9201 K16 IO_L40P_3 FPCLK
R9277
EXB2HV101JV
SUB_R0
SUB_R1
SUB_R2
SUB_R3
SUB_R4
SUB_R5
SUB_R6
SUB_R7
IC9201 R1 IO_L01N_6/VRP_6 S_ROUT0
IC9201 P1 IO_L01P_6/VRN_6 S_ROUT1
IC9201 P2 IO_L16N_6 S_ROUT2
IC9201 N2 IO_L17N_6 S_ROUT3
IC9201 T3 IO_L01N_5/RDWR_B S_ROUT4
IC9201 R3 IO_L01P_5/CS_B S_ROUT5
IC9201 N3 IO_L16P_6 S_ROUT6
IC9201 M3 IO_L19P_6 S_ROUT7
R9278
EXB2HV101JV
SUB_G0
SUB_G1
SUB_G2
SUB_G3
SUB_G4
SUB_G5
SUB_G6
SUB_G7
IC9201 T4 IO_L10N_5/VRP_5 S_GOUT0
IC9201 R4 IO_L10P_5/VRN_5 S_GOUT1
IC9201 M4 IO_L19N_6 S_GOUT2
IC9201 L4 IO_L21P_6 S_GOUT3
IC9201 T5 IO S_GOUT4
IC9201 R5 IO_L27N_5/VREF_5 S_GOUT5
IC9201 P5 IO_L27P_5 S_GOUT6
IC9201 N5 IO S_GOUT7
R9279
EXB2HV101JV
SUB_B0
SUB_B1
SUB_B2
SUB_B3
SUB_B4
SUB_B5
SUB_B6
SUB_B7
IC9201 L5 IO_L21N_6 S_BOUT0
IC9201 K5 IO_L23N_6 S_BOUT1
IC9201 R6 IO_L29N_5 S_BOUT2
IC9201 P6 IO_L29P_5/VREF_5 S_BOUT3
IC9201 N6 IO_L28N_5/D6 S_BOUT4
IC9201 M6 IO_L28P_5/D7 S_BOUT5
IC9201 N7 IO_L30N_5 S_BOUT6
IC9201 M7 IO_L30P_5 S_BOUT7
VDO_S
HDO_S
DCK_S
R9280 47
R9281 47
R9282 22
IC9201 P7 IO VDOB
IC9201 R7 IO_L31P_5/D5 HDOB
IC9201 T7 IO_L31N_5/D4 DCKBO
OUTPUT_SUB
RST_3.3
RM_BYTE
E11
E12
E13
E14
E15
E16
E17
E18
E19

⚠ D-BOARD TZTNP01YSSE (9/12)

TH-50PHD8BK/BS/EK/ES
D-Board (9 of 12) Schematic Diagram

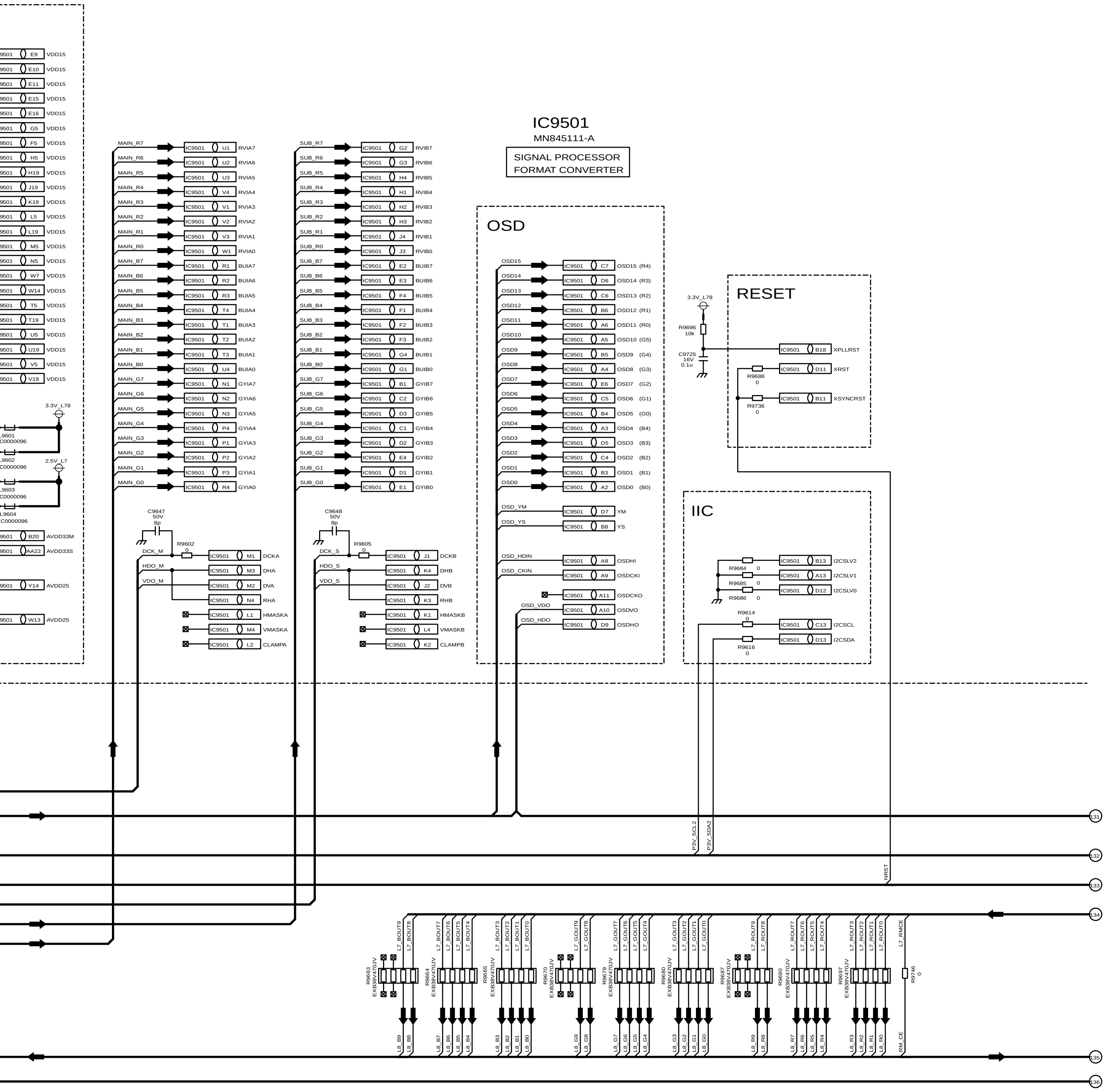
23	24	25	26	27

15.28. D-Board (10 of 12) Schematic Diagram


CA
CB
CC
CD
TO
DG-
(4/12
POWER
1.5V_L7
C9662 16V 0.1u
C9663 16V 0.1u
C9664 16V 0.1u
C9665 16V 0.1u
C9666 16V 0.1u
C9667 16V 0.1u
C9668 16V 0.1u
C9669 16V 0.1u
C9670 16V 0.1u
C9671 16V 0.1u
C9672 16V 0.1u
C9673 16V 0.1u
C9674 16V 0.1u
C9675 16V 0.1u
C9676 16V 0.1u
C9677 16V 0.1u
C9678 16V 0.1u
C9679 16V 0.1u
C9680 16V 0.1u
C9681 16V 0.1u
C9682 16V 0.1u
C9683 16V 0.1u
C9684 16V 0.1u
IC9501 E9 VDD15
IC9501 E10 VDD15
IC9501 E11 VDD15
IC9501 E15 VDD15
IC9501 E16 VDD15
IC9501 G5 VDD15
IC9501 F5 VDD15
IC9501 H5 VDD15
IC9501 H19 VDD15
IC9501 J19 VDD15
IC9501 K19 VDD15
IC9501 L5 VDD15
IC9501 L19 VDD15
IC9501 M5 VDD15
IC9501 N5 VDD15
IC9501 W7 VDD15
IC9501 W14 VDD15
IC9501 T5 VDD15
IC9501 T19 VDD15
IC9501 U5 VDD15
IC9501 U19 VDD15
IC9501 V5 VDD15
IC9501 V19 VDD15
IC9501 H14 VSS
IC9501 H15 VSS
IC9501 H16 VSS
IC9501 J8 VSS
IC9501 J9 VSS
IC9501 J10 VSS
IC9501 J11 VSS
IC9501 J12 VSS
IC9501 J13 VSS
IC9501 J14 VSS
IC9501 J15 VSS
IC9501 J16 VSS
IC9501 K8 VSS
IC9501 K9 VSS
IC9501 K10 VSS
IC9501 K11 VSS
IC9501 K12 VSS
IC9501 K13 VSS
IC9501 K14 VSS
IC9501 K15 VSS
IC9501 K16 VSS
IC9501 L8 VSS
IC9501 L9 VSS
IC9501 L10 VSS
IC9501 L11 VSS
IC9501 L12 VSS
IC9501 L13 VSS
IC9501 L14 VSS
IC9501 L15 VSS
IC9501 L16 VSS
IC9501 R11 VSS
IC9501 R12 VSS
IC9501 R13 VSS
IC9501 R14 VSS
IC9501 R15 VSS
IC9501 R16 VSS
IC9501 T8 VSS
IC9501 T9 VSS
IC9501 T10 VSS
IC9501 T11 VSS
IC9501 T12 VSS
IC9501 T13 VSS
IC9501 T14 VSS
IC9501 T15 VSS
IC9501 T16 VSS
IC9501 V23 VSS
IC9501 W5 VSS
IC9501 W8 VSS
IC9501 W15 VSS
IC9501 W19 VSS
IC9501 Y4 VSS
IC9501 Y8 VSS
IC9501 Y15 VSS
IC9501 Y16 VSS
IC9501 Y20 VSS
IC9501 Y23 VSS
3.3V_L78
*L9601 J0JHC0000096
*L9602 J0JHC0000096
2.5V_L7
*L9603 J0JHC0000096
L9604 J0JHC0000096
C9781 6.3V 10u
C9718 16V 0.1u
C9719 16V 0.1u
C9782 6.3V 10u
C9783 6.3V 10u
C9784 16V 0.1u
C9721 16V 0.1u
C9785 6.3V 10u
IC9501 A21 AVSSM
IC9501 AB23 AVSSS
IC9501 AA14 AVSS
IC9501 Y13 AVSS
IC9501 B20 AVDD33M
IC9501 AA22 AVDD33S
IC9501 Y14 AVDD25
IC9501 W13 AVDD25
L11
L12
L13
L14
L15
L16
L17
L18
L19

TO
DG-BOARD
(4/12)

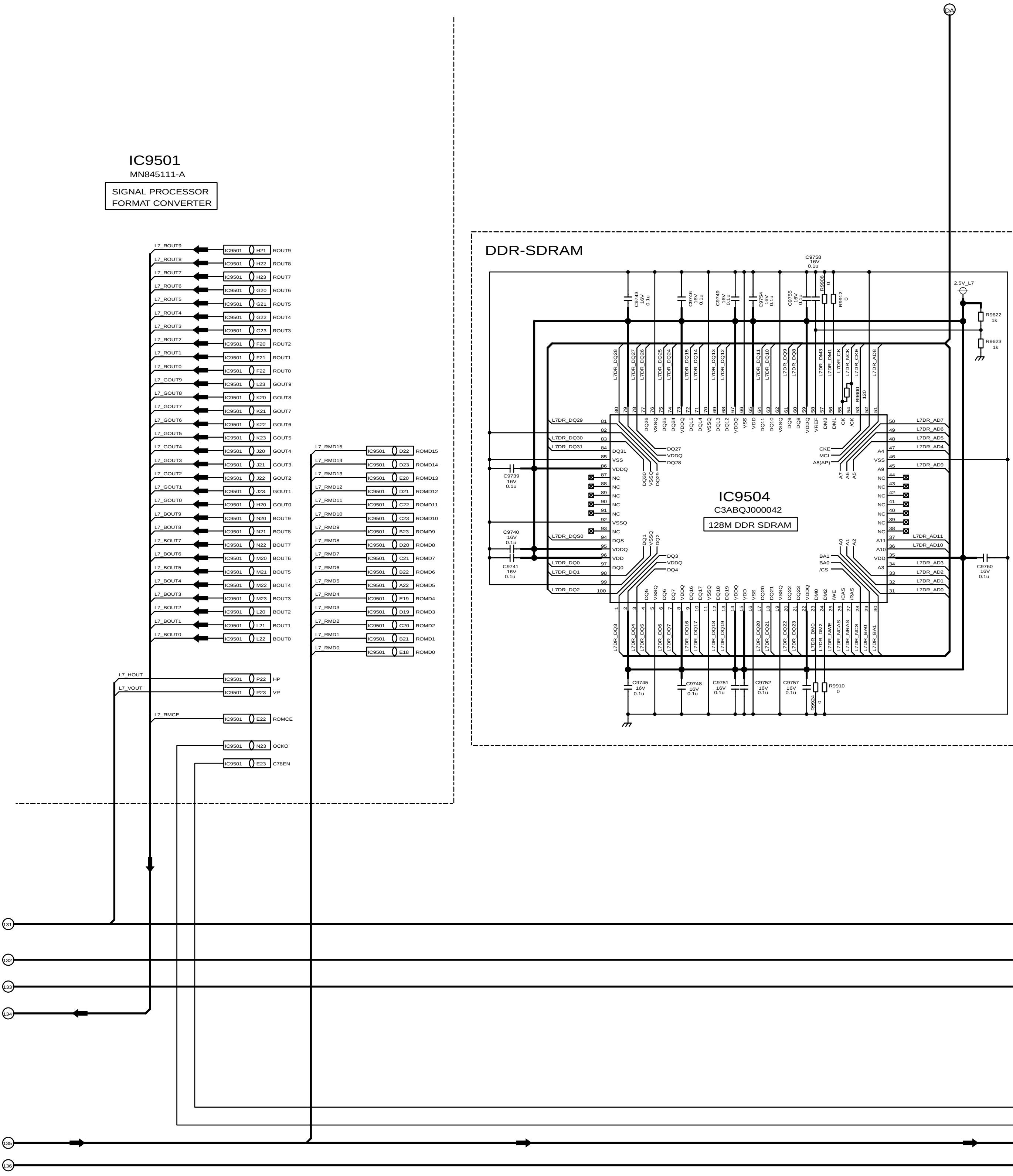
D-BOARD TZTNP01YSSE (10/12)

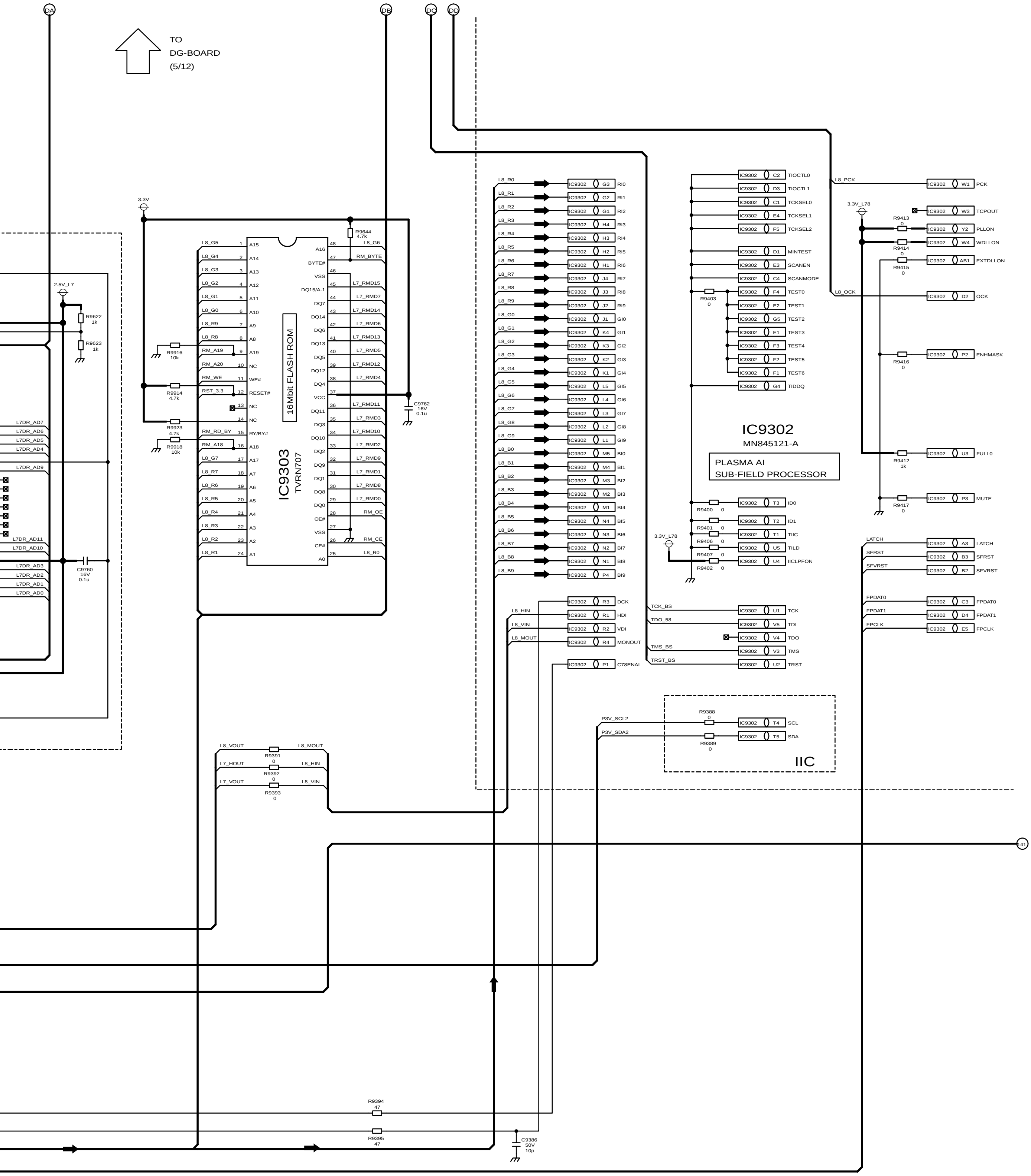

IC9501
MN845111-A
SIGNAL PROCESSOR
FORMAT CONVERTER
OSD
RESET
IIC
VDD15
AVDD33M
AVDD33S
AVDD25
3.3V_L78
2.5V_L7
MAIN_R7
MAIN_G0
SUB_R7
SUB_G0
RVIA7
GYIA0
RVIB7
GYIB0
C9647 50V 8p
C9648 50V 8p
R9602 0
R9605 0
DCK_M
HDO_M
VDO_M
DCK_S
HDO_S
VDO_S
DCKA
DHA
DVA
RHA
HMASKA
VMASKA
CLAMPA
DCKB
DHB
DVB
RHB
HMASKB
VMASKB
CLAMPB
OSD15
OSD0
OSD15 (R4)
OSD0 (B0)
OSD_YM
OSD_YS
YM
YS
OSD_HDIN
OSD_CKIN
OSDHI
OSDCKI
OSDCKO
OSD_VDO
OSD_HDO
OSDVO
OSDHO
R9696 10k
C9725 16V 0.1u
R9688 0
R9736 0
XPLLRST
XRST
XSYNCRST
R9684 0
R9685 0
R9686 0
R9614 0
R9616 0
I2CSLV2
I2CSLV1
I2CSLV0
I2CSCL
I2CSDA
P3V_SCL2
P3V_SDA2
NRST
R9663 EXB38V470JV
R9664 EXB38V470JV
R9665 EXB38V470JV
R9670 EXB38V470JV
R9679 EXB38V470JV
R9680 EXB38V470JV
R9687 EXB38V470JV
R9690 EXB38V470JV
R9697 EXB38V470JV
R9746 0
L7_RMCE
RM_CE
131
132
133
134
135
136

TH-50PHD8BK/BS/EK/ES
D-Board (10 of 12) Schematic Diagram

32	33	34	35	36

15.29. D-Board (11 of 12) Schematic Diagram


DA
IC9501
MN845111-A
SIGNAL PROCESSOR
FORMAT CONVERTER
L7_ROUT9
L7_ROUT8
L7_ROUT7
L7_ROUT6
L7_ROUT5
L7_ROUT4
L7_ROUT3
L7_ROUT2
L7_ROUT1
L7_ROUT0
L7_GOUT9
L7_GOUT8
L7_GOUT7
L7_GOUT6
L7_GOUT5
L7_GOUT4
L7_GOUT3
L7_GOUT2
L7_GOUT1
L7_GOUT0
L7_BOUT9
L7_BOUT8
L7_BOUT7
L7_BOUT6
L7_BOUT5
L7_BOUT4
L7_BOUT3
L7_BOUT2
L7_BOUT1
L7_BOUT0
L7_HOUT
L7_VOUT
L7_RMCE
HP
VP
ROMCE
OCKO
C78EN
L7_RMD15
L7_RMD14
L7_RMD13
L7_RMD12
L7_RMD11
L7_RMD10
L7_RMD9
L7_RMD8
L7_RMD7
L7_RMD6
L7_RMD5
L7_RMD4
L7_RMD3
L7_RMD2
L7_RMD1
L7_RMD0
DDR-SDRAM
IC9504
C3ABQJ000042
128M DDR SDRAM
2.5V_L7
R9622
1k
R9623
1k
C9758
16V
0.1u
C9743
C9746
C9749
C9754
C9755
R9908
R9912
C9739
C9740
C9741
C9745
C9748
C9751
C9752
C9757
R9924
R9910
C9760
R9600
L7DR_AD7
L7DR_AD6
L7DR_AD5
L7DR_AD4
L7DR_AD9
L7DR_AD11
L7DR_AD10
L7DR_AD3
L7DR_AD2
L7DR_AD1
L7DR_AD0
L7DR_DQ29
L7DR_DQ30
L7DR_DQ31
L7DR_DQS0
L7DR_DQ0
L7DR_DQ1
L7DR_DQ2
131
132
133
134
135
136


DA
DB
DC
DD
TO
DG-BOARD
(5/12)
3.3V
2.5V_L7
R9622 1k
R9623 1k
R9916 10k
R9914 4.7k
R9923 4.7k
R9918 10k
R9644 4.7k
C9762 16V 0.1u
C9760 16V 0.1u
L7DR_AD7
L7DR_AD6
L7DR_AD5
L7DR_AD4
L7DR_AD9
L7DR_AD11
L7DR_AD10
L7DR_AD3
L7DR_AD2
L7DR_AD1
L7DR_AD0
16Mbit FLASH ROM
IC9303
TVRN707
A15
A14
A13
A12
A11
A10
A9
A8
A19
NC
WE#
RESET#
RY/BY#
A18
A17
A7
A6
A5
A4
A3
A2
A1
A16
BYTE#
VSS
DQ15/A-1
DQ7
DQ14
DQ6
DQ13
DQ5
DQ12
DQ4
VCC
DQ11
DQ3
DQ10
DQ2
DQ9
DQ1
DQ8
DQ0
OE#
CE#
A0
RM_A19
RM_A20
RM_WE
RST_3.3
RM_RD_BY
RM_A18
RM_BYTE
RM_OE
RM_CE
L8_G6
L8_R0
L7_RMD15
L7_RMD7
L7_RMD14
L7_RMD6
L7_RMD13
L7_RMD5
L7_RMD12
L7_RMD4
L7_RMD11
L7_RMD3
L7_RMD10
L7_RMD2
L7_RMD9
L7_RMD1
L7_RMD8
L7_RMD0
IC9302
MN845121-A
PLASMA AI
SUB-FIELD PROCESSOR
RI0
RI1
RI2
RI3
RI4
RI5
RI6
RI7
RI8
RI9
GI0
GI1
GI2
GI3
GI4
GI5
GI6
GI7
GI8
GI9
BI0
BI1
BI2
BI3
BI4
BI5
BI6
BI7
BI8
BI9
DCK
HDI
VDI
MONOUT
C78ENAI
TIOCTL0
TIOCTL1
TCKSEL0
TCKSEL1
TCKSEL2
MINTEST
SCANEN
SCANMODE
TEST0
TEST1
TEST2
TEST3
TEST4
TEST5
TEST6
TIDDQ
ID0
ID1
TIIC
TILD
IICLPFON
TCK
TDI
TDO
TMS
TRST
PCK
TCPOUT
PLLON
WDLLON
EXTDLLON
OCK
ENHMASK
FULL0
MUTE
LATCH
SFRST
SFVRST
FPDAT0
FPDAT1
FPCLK
L8_PCK
L8_OCK
3.3V_L78
R9413 0
R9414 0
R9415 0
R9416 0
R9412 1k
R9417 0
R9403 0
R9400 0
R9401 0
R9406 0
R9407 0
R9402 0
TCK_BS
TDO_58
TMS_BS
TRST_BS
L8_HIN
L8_VIN
L8_MOUT
L8_VOUT
L7_HOUT
L7_VOUT
R9391 0
R9392 0
R9393 0
P3V_SCL2
P3V_SDA2
R9388 0
R9389 0
SCL
SDA
IIC
R9394 47
R9395 47
C9386 50V 10p
141

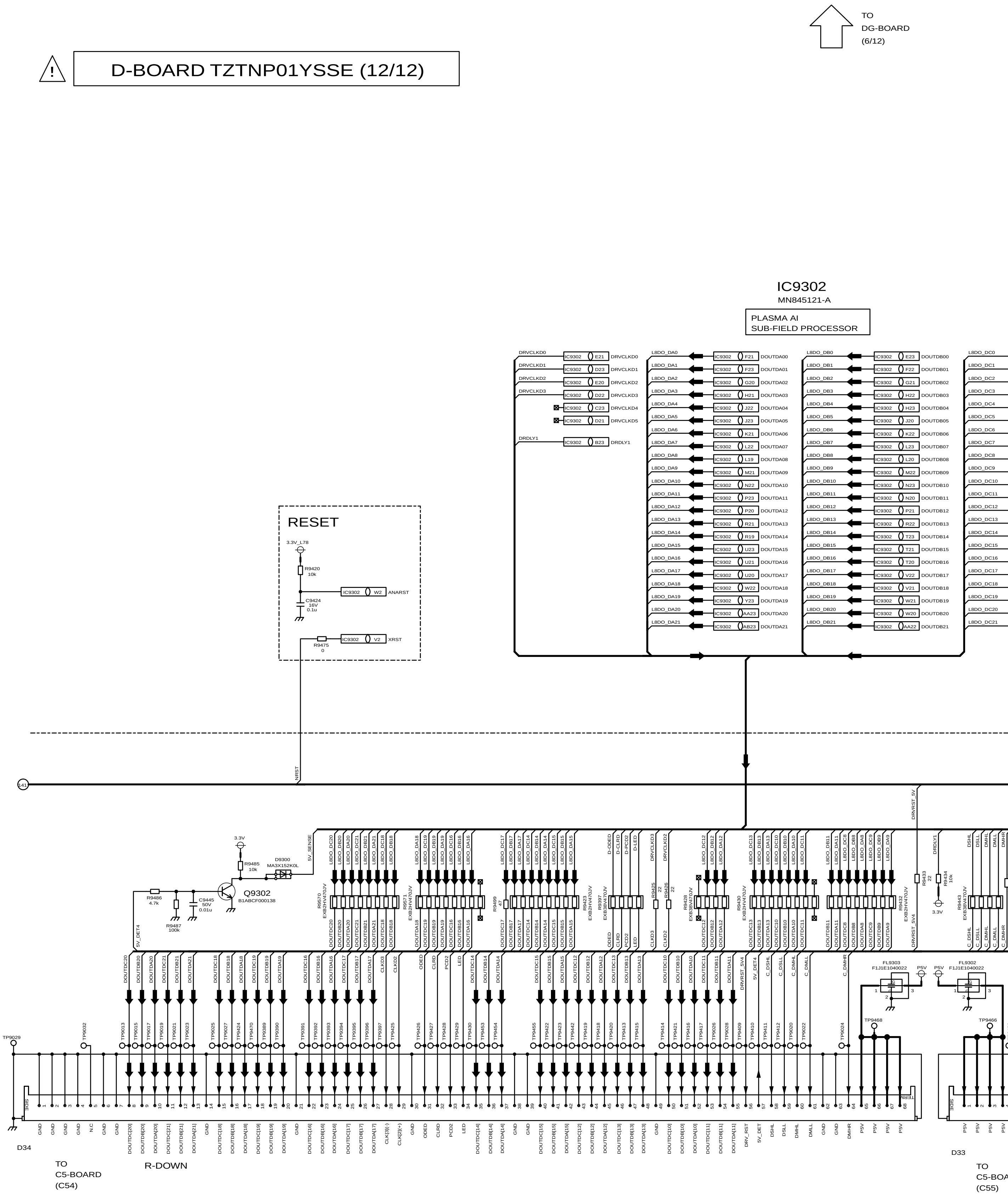
⚠ D-BOARD TZTNP01YSSE (11/12)

TH-50PHD8BK/BS/EK/ES
D-Board (11 of 12) Schematic Diagram

41	42	43	44	45

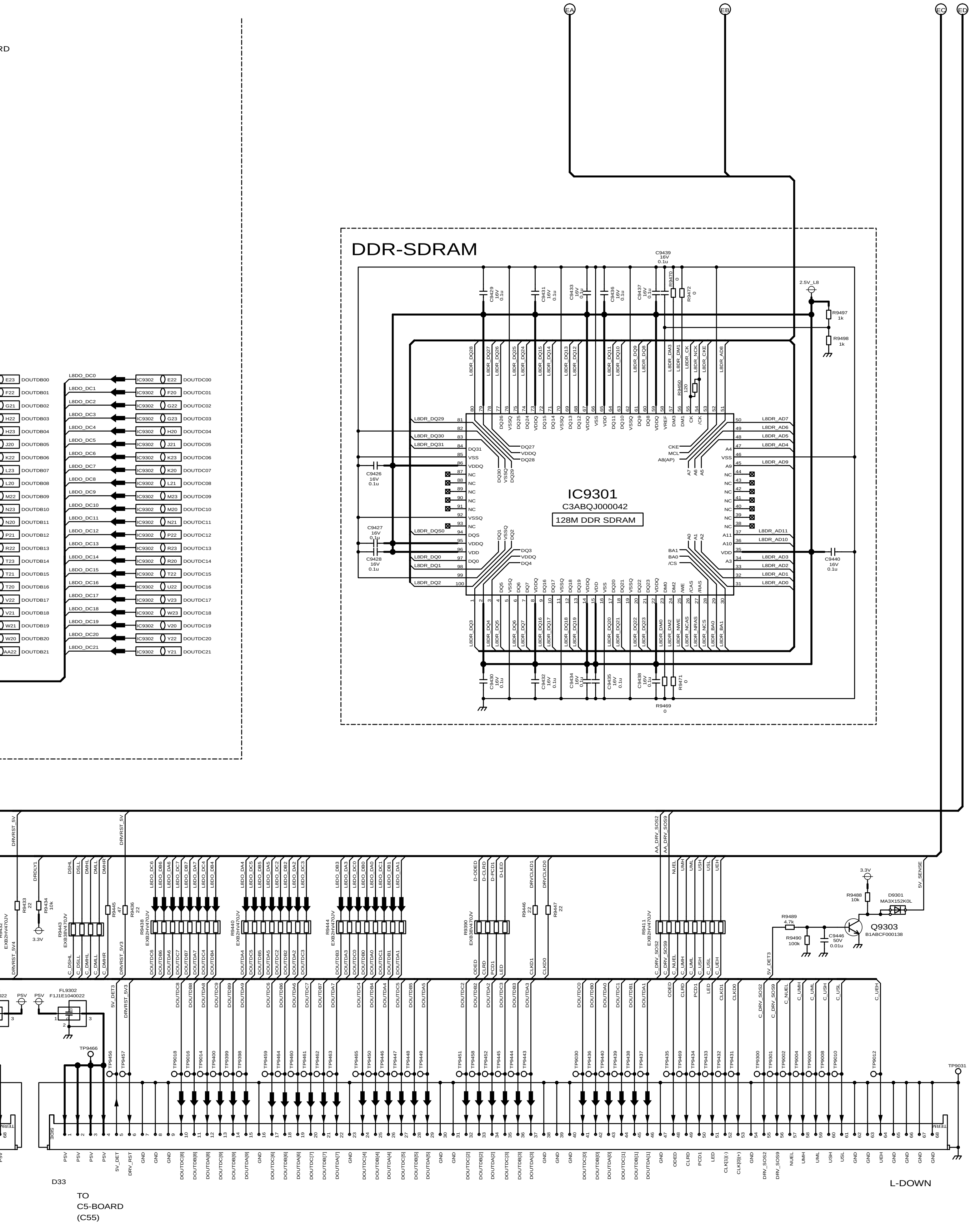
15.30. D-Board (12 of 12) Schematic Diagram

D-BOARD TZTNP01YSSE (12/12)


TO
DG-BOARD
(6/12)
IC9302
MN845121-A
PLASMA AI
SUB-FIELD PROCESSOR
RESET
3.3V_L78
R9420
10k
C9424
16V
0.1u
ANARST
XRST
R9475
0
NRST
Q9302
B1ABCF000138
D9300
MA3X152K0L
R9485
10k
R9486
4.7k
R9487
100k
C9445
50V
0.01u
3.3V
5V_SENSE
5V_DET4
DRVRST_5V
FL9303
F1J1E1040022
FL9302
F1J1E1040022
TP9468
TP9466
TP9029
TP9032
D34
TO
C5-BOARD
(C54)
R-DOWN
D33
TO
C5-BOARD
(C55)

TH-50PHD8BK/BS/EK/ES
D-Board (12 of 12) Schematic Diagram

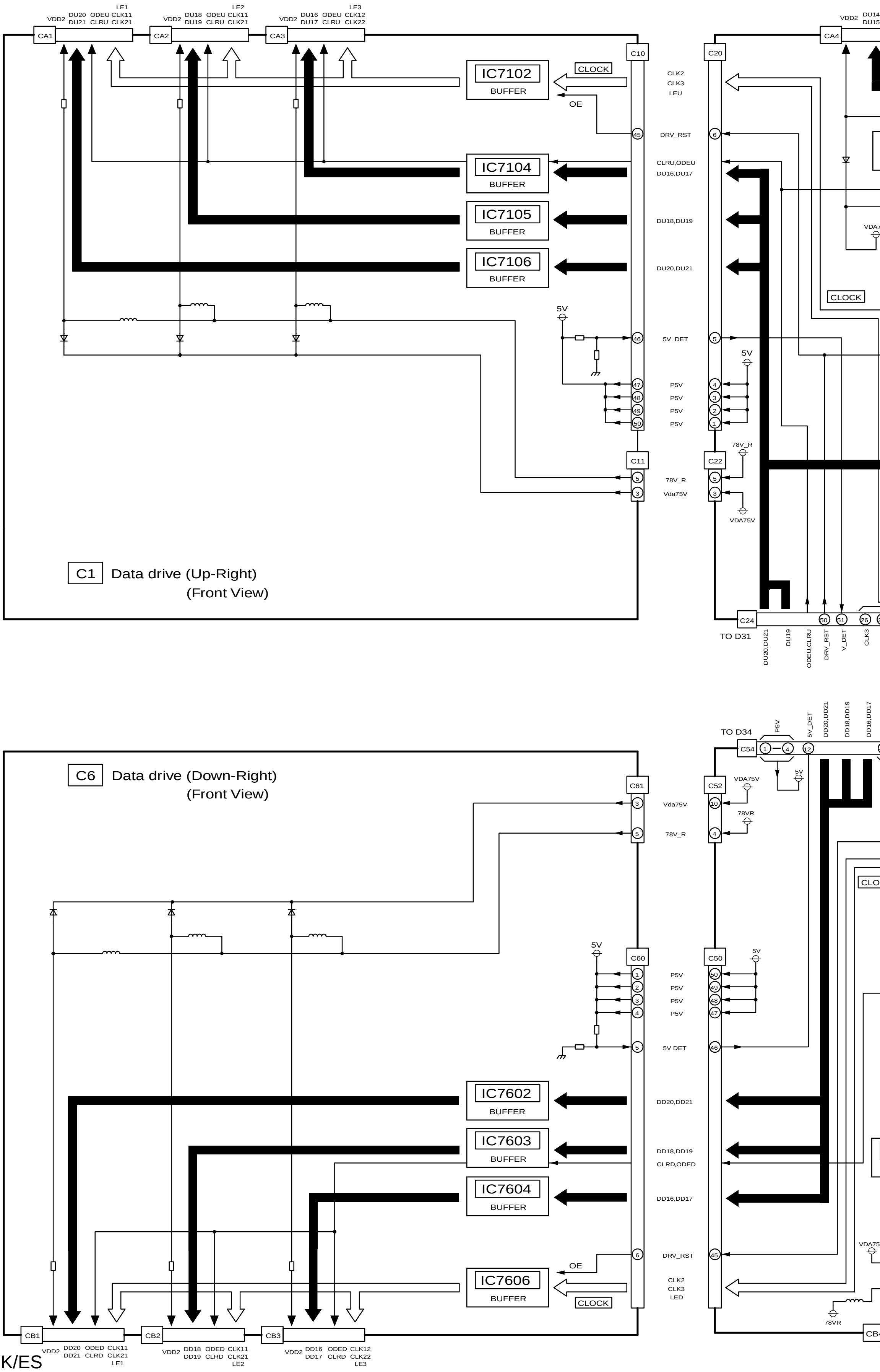
46	47	48	49	50


EA
EB
EC
ED
DDR-SDRAM
IC9301
C3ABQJ000042
128M DDR SDRAM
2.5V_L8
R9497 1k
R9498 1k
C9440 16V 0.1u
3.3V
Q9303
B1ABCF000138
D9301
MA3X152K0L
R9488 10k
R9489 4.7k
R9490 100k
C9446 50V 0.01u
5V_SENSE
FL9302
F1J1E1040022
TP9466
TP9031
D33
TO
C5-BOARD
(C55)
L-DOWN

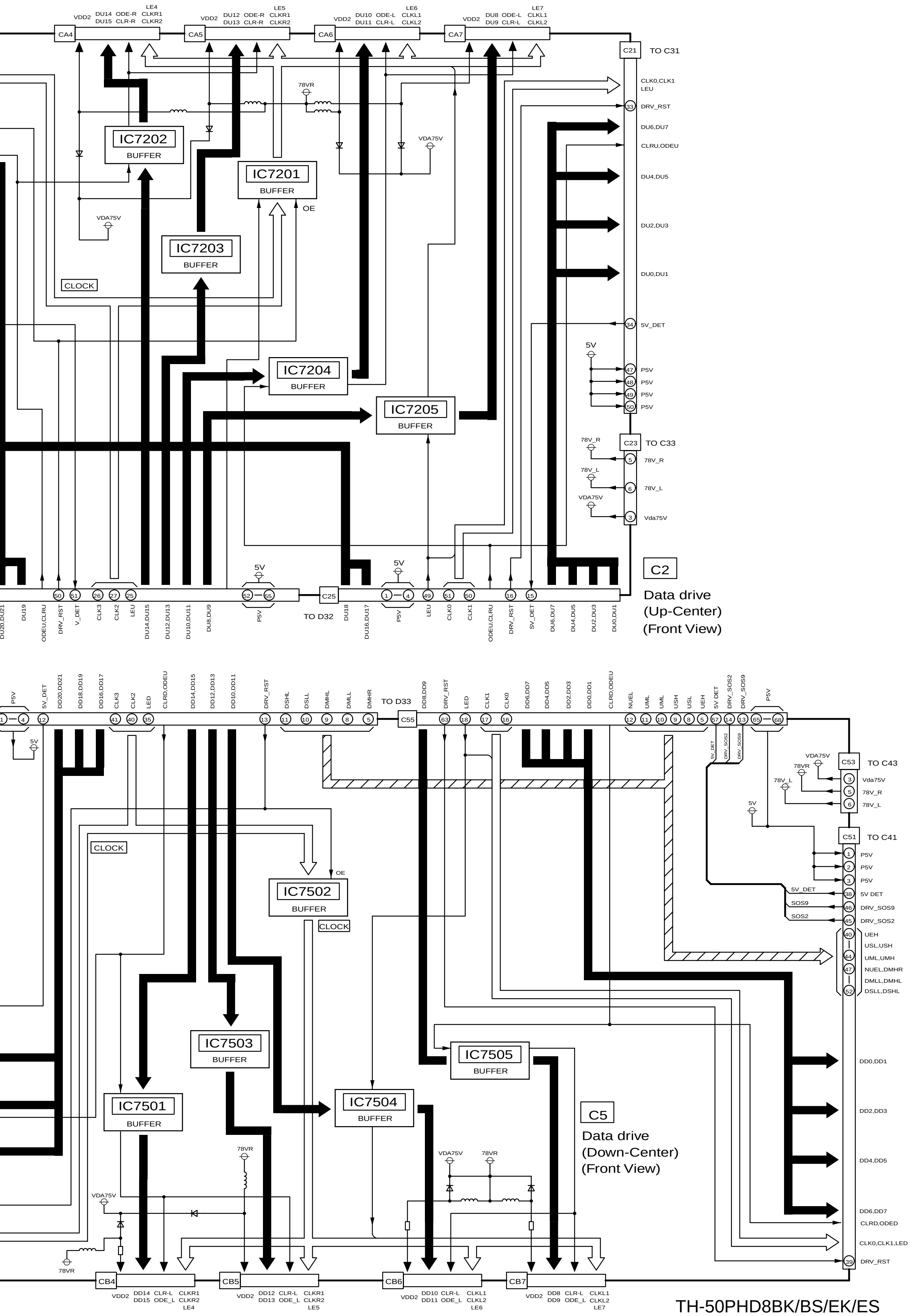
TH-50PHD8BK/BS/EK/ES
D-Board (12 of 12) Schematic Diagram

50	51	52	53	54

15.31. C1, C2, C5 and C6-Board Block Diagram

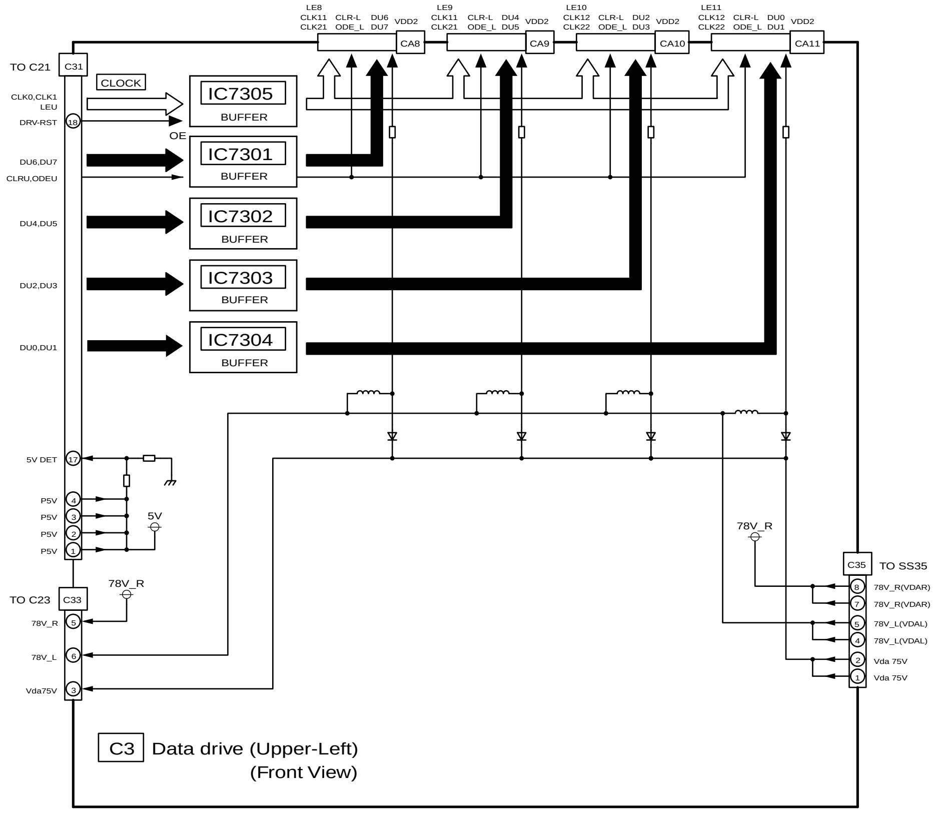

VDD2
DU20
DU21
ODEU
CLRU
LE1
CLK11
CLK21
CA1
DU18
DU19
LE2
CA2
DU16
DU17
LE3
CLK12
CLK22
CA3
C10
IC7102
BUFFER
CLOCK
OE
CLK2
CLK3
LEU
45
DRV_RST
IC7104
BUFFER
CLRU,ODEU
DU16,DU17
IC7105
BUFFER
DU18,DU19
IC7106
BUFFER
DU20,DU21
5V
46
5V_DET
47
48
49
50
P5V
C11
5
3
78V_R
Vda75V
C1
Data drive (Up-Right)
(Front View)
C20
CA4
DU14
DU15
6
CLOCK
VDA7
5V
4
3
2
1
78V_R
C22
VDA75V
C24
50
51
26
TO D31
DU20,DU21
DU19
ODEU,CLRU
DRV_RST
V_DET
CLK3
TO D34
P5V
5V_DET
DD20,DD21
DD18,DD19
DD16,DD17
C54
1
4
12
C52
VDA75V
5V
10
78VR
C6
Data drive (Down-Right)
(Front View)
C61
Vda75V
78V_R
CLO
C60
C50
1
2
3
4
5
P5V
5V DET
46
IC7602
BUFFER
DD20,DD21
IC7603
BUFFER
DD18,DD19
CLRD,ODED
IC7604
BUFFER
DD16,DD17
6
DRV_RST
VDA75
IC7606
BUFFER
OE
CLOCK
CLK2
CLK3
LED
78VR
CB1
CB2
CB3
CB4
DD20
DD21
ODED
CLRD
CLK11
CLK21
LE1
DD18
DD19
LE2
DD16
DD17
CLK12
CLK22
LE3

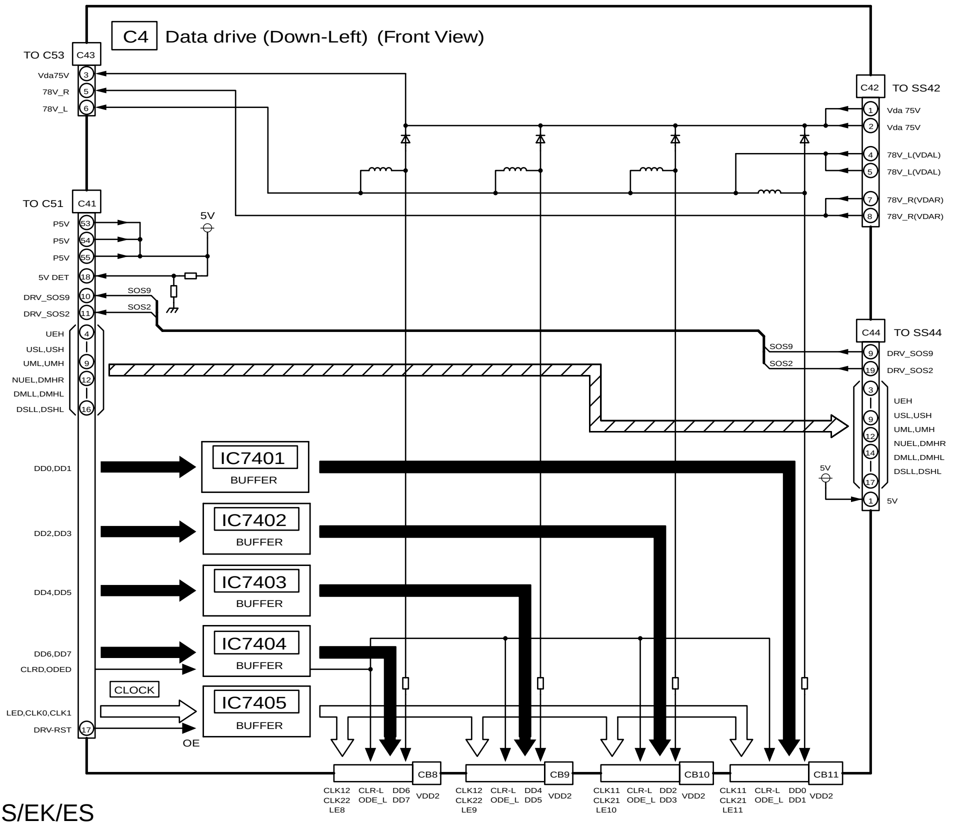
TH-50PHD8BK/BS/EK/ES
C1, C2, C5 and C6-Board Block Diagram


VDD2
DU14 DU15
ODE-R CLR-R
LE4 CLKR1 CLKR2
CA4
VDD2
DU12 DU13
ODE-R CLR-R
LE5 CLKR1 CLKR2
CA5
VDD2
DU10 DU11
ODE-L CLR-L
LE6 CLKL1 CLKL2
CA6
VDD2
DU8 DU9
ODE-L CLR-L
LE7 CLKL1 CLKL2
CA7
C21
TO C31
CLK0,CLK1 LEU
33 DRV_RST
DU6,DU7
CLRU,ODEU
DU4,DU5
DU2,DU3
DU0,DU1
34 5V_DET
5V
47 P5V
48 P5V
49 P5V
50 P5V
78V_R
C23
TO C33
5 78V_R
78V_L
6 78V_L
VDA75V
3 Vda75V
78VR
VDA75V
IC7202 BUFFER
IC7201 BUFFER
OE
IC7203 BUFFER
VDA75V
CLOCK
IC7204 BUFFER
IC7205 BUFFER
5V
5V
C25
TO D32
C2
Data drive (Up-Center) (Front View)
DU20,DU21
DU19
ODEU,CLRU
DRV_RST
V_DET
CLK3
CLK2
LEU
DU14,DU15
DU12,DU13
DU10,DU11
DU8,DU9
P5V
DU18
DU16,DU17
P5V
LEU
CLK0
CLK1
ODEU,CLRU
DRV_RST
5V_DET
DU6,DU7
DU4,DU5
DU2,DU3
DU0,DU1
P5V
5V_DET
DD20,DD21
DD18,DD19
DD16,DD17
CLK3
CLK2
LED
CLRD,ODEU
DD14,DD15
DD12,DD13
DD10,DD11
DRV_RST
DSHL
DSLL
DMHL
DMLL
DMHR
TO D33
C55
DD8,DD9
DRV_RST
LED
CLK1
CLK0
DD6,DD7
DD4,DD5
DD2,DD3
DD0,DD1
CLRD,ODEU
NUEL
UML
UML
USH
USL
UEH
5V DET
DRV_SOS2
DRV_SOS9
P5V
5V
5V_DET
DRV_SOS2
DRV_SOS9
VDA75V
78VR
78V_L
C53
TO C43
3 Vda75V
5 78V_R
6 78V_L
5V
C51
TO C41
1 P5V
2 P5V
3 P5V
5V_DET
38 5V DET
SOS9
46 DRV_SOS9
SOS2
45 DRV_SOS2
40 UEH
USL,USH
44 UML,UMH
47 NUEL,DMHR
DMLL,DMHL
52 DSLL,DSHL
CLOCK
OE
IC7502 BUFFER
CLOCK
IC7503 BUFFER
IC7505 BUFFER
C5
Data drive (Down-Center) (Front View)
IC7501 BUFFER
IC7504 BUFFER
78VR
VDA75V
78VR
VDA75V
78VR
DD0,DD1
DD2,DD3
DD4,DD5
DD6,DD7
CLRD,ODED
CLK0,CLK1,LED
39 DRV_RST
CB4
VDD2
DD14 DD15
CLR-L ODE_L
CLKR1 CLKR2 LE4
CB5
VDD2
DD12 DD13
CLR-L ODE_L
CLKR1 CLKR2 LE5
CB6
VDD2
DD10 DD11
CLR-L ODE_L
CLKL1 CLKL2 LE6
CB7
VDD2
DD8 DD9
CLR-L ODE_L
CLKL1 CLKL2 LE7

TH-50PHD8BK/BS/EK/ES
C1, C2, C5 and C6-Board Block Diagram

15.32. C3 and C4-Board Block Diagram


LE8
CLK11
CLK21
CLR-L
ODE_L
DU6
DU7
VDD2
CA8
LE9
CLK11
CLK21
CLR-L
ODE_L
DU4
DU5
VDD2
CA9
LE10
CLK12
CLK22
CLR-L
ODE_L
DU2
DU3
VDD2
CA10
LE11
CLK12
CLK22
CLR-L
ODE_L
DU0
DU1
VDD2
CA11
TO C21
C31
CLOCK
CLK0,CLK1
LEU
DRV-RST
18
IC7305
BUFFER
OE
DU6,DU7
CLRU,ODEU
IC7301
BUFFER
DU4,DU5
IC7302
BUFFER
DU2,DU3
IC7303
BUFFER
DU0,DU1
IC7304
BUFFER
5V DET
17
P5V
4
P5V
3
P5V
2
P5V
1
5V
78V_R
TO C23
C33
78V_R
5
78V_L
6
Vda75V
3
C35
TO SS35
8
78V_R(VDAR)
7
78V_R(VDAR)
5
78V_L(VDAL)
4
78V_L(VDAL)
2
Vda 75V
1
Vda 75V
C3
Data drive (Upper-Left)
(Front View)

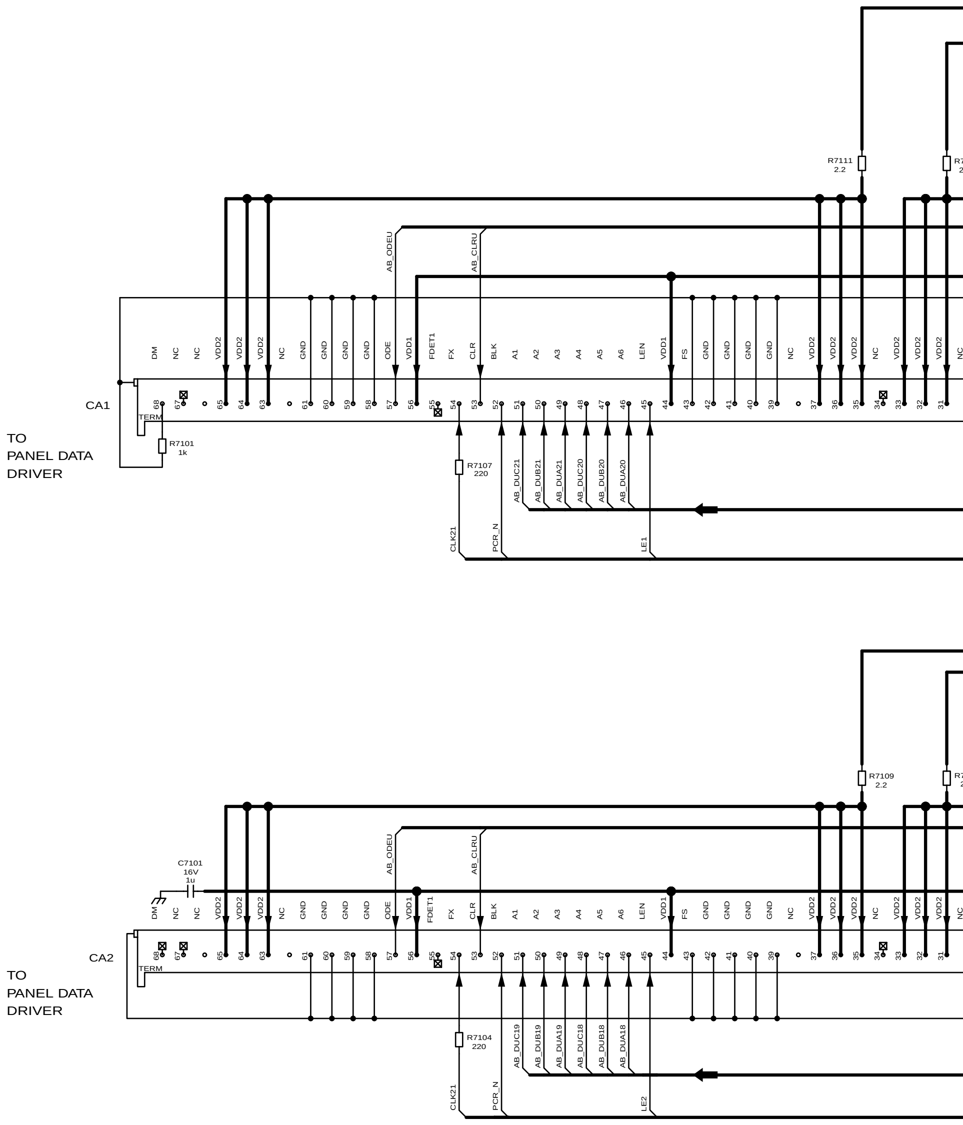

C4
Data drive (Down-Left) (Front View)
TO C53
C43
Vda75V
3
78V_R
5
78V_L
6
C42
TO SS42
1
Vda 75V
2
Vda 75V
4
78V_L(VDAL)
5
78V_L(VDAL)
7
78V_R(VDAR)
8
78V_R(VDAR)
TO C51
C41
P5V
53
P5V
54
P5V
55
5V
5V DET
18
DRV_SOS9
10
DRV_SOS2
11
SOS9
SOS2
UEH
4
USL,USH
UML,UMH
9
NUEL,DMHR
12
DMLL,DMHL
DSLL,DSHL
16
C44
TO SS44
SOS9
SOS2
9
DRV_SOS9
19
DRV_SOS2
3
UEH
9
USL,USH
UML,UMH
12
NUEL,DMHR
14
DMLL,DMHL
DSLL,DSHL
17
5V
1
5V
DD0,DD1
IC7401
BUFFER
DD2,DD3
IC7402
BUFFER
DD4,DD5
IC7403
BUFFER
DD6,DD7
CLRD,ODED
IC7404
BUFFER
CLOCK
LED,CLK0,CLK1
DRV-RST
17
IC7405
BUFFER
OE
CB8
CLK12
CLK22
LE8
CLR-L
ODE_L
DD6
DD7
VDD2
CB9
CLK12
CLK22
LE9
CLR-L
ODE_L
DD4
DD5
VDD2
CB10
CLK11
CLK21
LE10
CLR-L
ODE_L
DD2
DD3
VDD2
CB11
CLK11
CLK21
LE11
CLR-L
ODE_L
DD0
DD1
VDD2

TH-50PHD8BK/BS/EK/ES
C3 and C4-Board Block Diagram

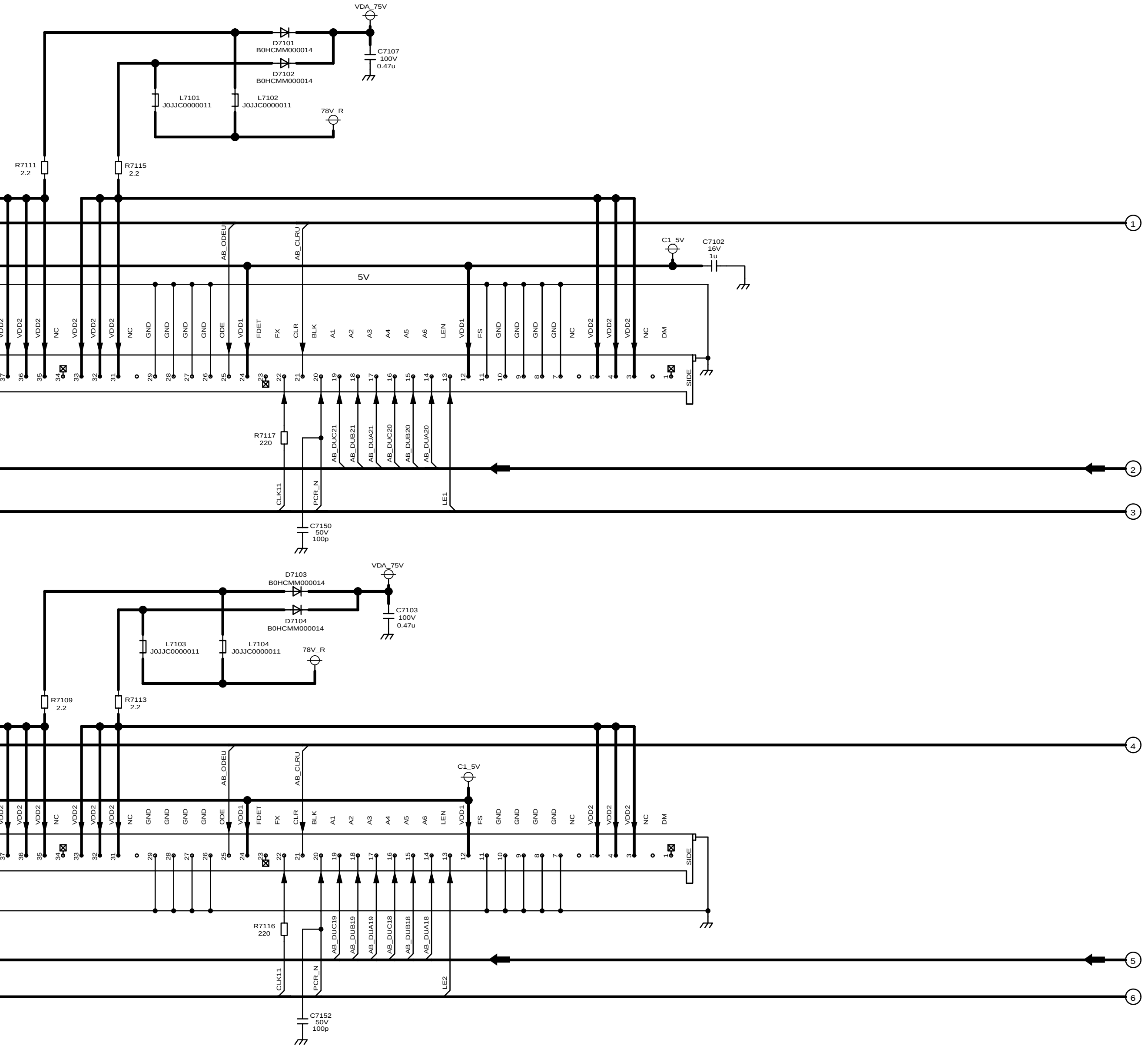
TH-50PHD8BK/BS/EK/ES
C3 and C4-Board Block Diagram

15.33. C1-Board (1 of 2) Schematic Diagram

⚠ C1-BOARD TNPA3561 (1/2)


A
B
C
D
E
CA1
TO
PANEL DATA
DRIVER
TERM
R7101
1k
R7111
2.2
AB_ODEU
AB_CLRU
DM
NC
NC
VDD2
VDD2
VDD2
NC
GND
GND
GND
GND
ODE
VDD1
FDET1
FX
CLR
BLK
A1
A2
A3
A4
A5
A6
LEN
VDD1
FS
GND
GND
GND
GND
NC
VDD2
VDD2
VDD2
NC
VDD2
VDD2
VDD2
68
67
65
64
63
61
60
59
58
57
56
55
54
53
52
51
50
49
48
47
46
45
44
43
42
41
40
39
37
36
35
34
33
32
31
R7107
220
AB_DUC21
AB_DUB21
AB_DUA21
AB_DUC20
AB_DUB20
AB_DUA20
CLK21
PCR_N
LE1
CA2
TO
PANEL DATA
DRIVER
C7101
16V
1u
R7109
2.2
R7104
220
AB_DUC19
AB_DUB19
AB_DUA19
AB_DUC18
AB_DUB18
AB_DUA18
CLK21
PCR_N
LE2
1
2
3
4

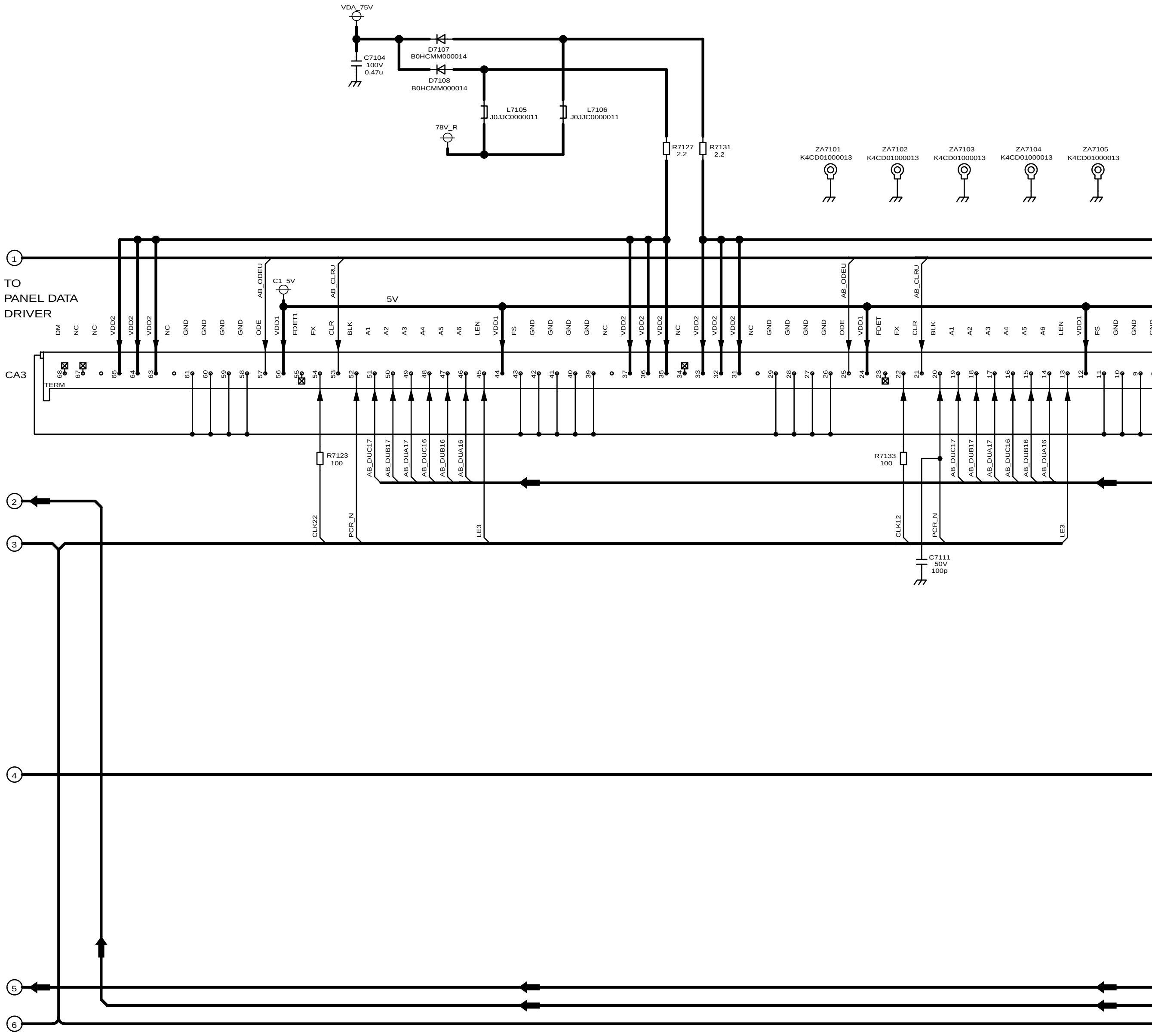
TH-50PHD8BK/BS/EK/ES
C1-Board (1 of 2) Schematic Diagram


VDA_75V
D7101
B0HCMM000014
D7102
B0HCMM000014
C7107
100V
0.47u
L7101
J0JJC0000011
L7102
J0JJC0000011
78V_R
R7111
2.2
R7115
2.2
AB_ODEU
AB_CLRU
C1_5V
C7102
16V
1u
5V
VDD2
VDD2
VDD2
NC
VDD2
VDD2
VDD2
NC
GND
GND
GND
GND
ODE
VDD1
FDET
FX
CLR
BLK
A1
A2
A3
A4
A5
A6
LEN
VDD1
FS
GND
GND
GND
GND
NC
VDD2
VDD2
VDD2
NC
DM
SIDE
R7117
220
AB_DUC21
AB_DUB21
AB_DUA21
AB_DUC20
AB_DUB20
AB_DUA20
CLK11
PCR_N
LE1
C7150
50V
100p
1
2
3
VDA_75V
D7103
B0HCMM000014
D7104
B0HCMM000014
C7103
100V
0.47u
L7103
J0JJC0000011
L7104
J0JJC0000011
78V_R
R7109
2.2
R7113
2.2
AB_ODEU
AB_CLRU
C1_5V
R7116
220
AB_DUC19
AB_DUB19
AB_DUA19
AB_DUC18
AB_DUB18
AB_DUA18
CLK11
PCR_N
LE2
C7152
50V
100p
4
5
6

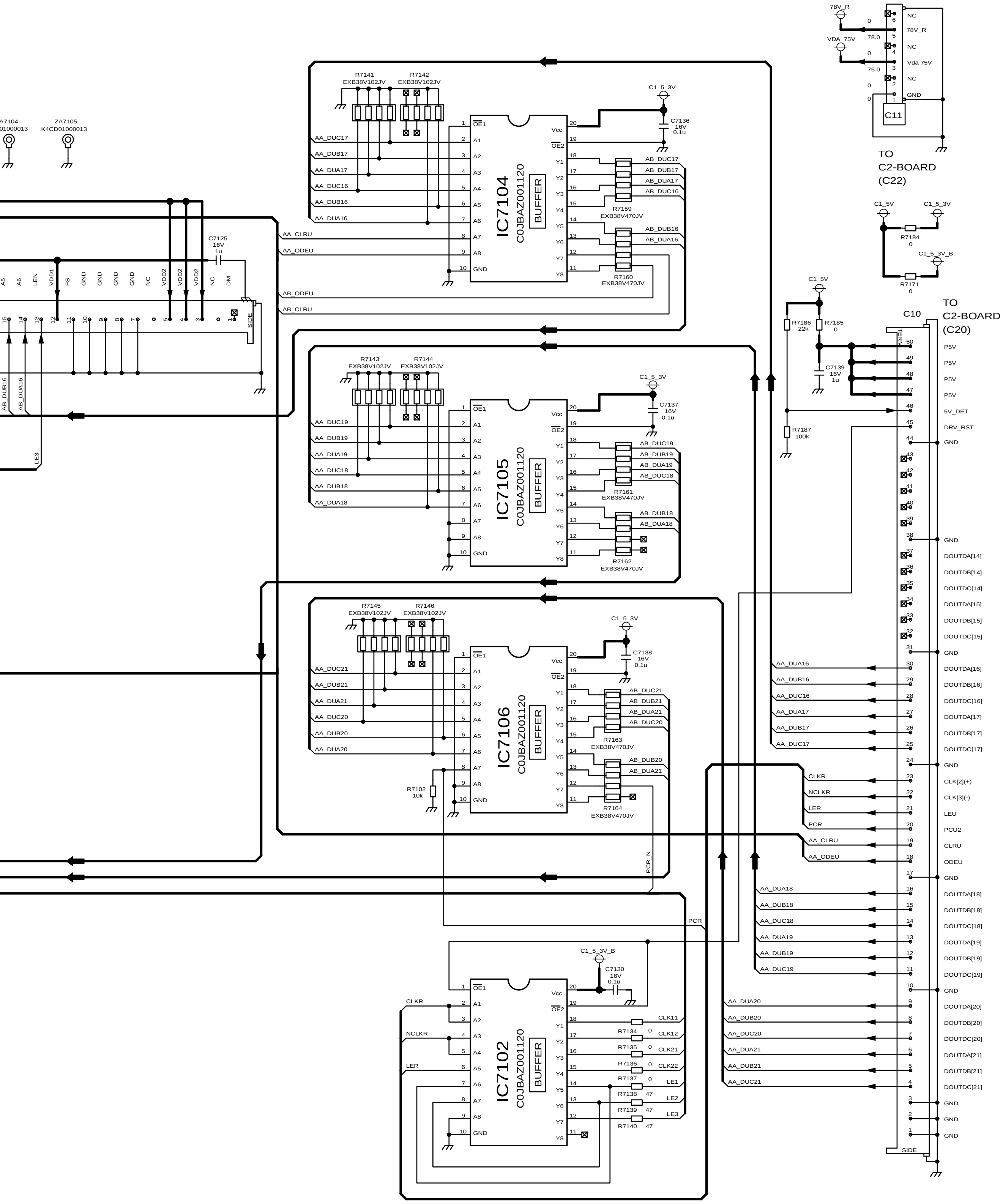
TH-50PHD8BK/BS/EK/ES
C1-Board (1 of 2) Schematic Diagram

4 5 6 7 8

15.34. C1-Board (2 of 2) Schematic Diagram


VDA_75V
C7104
100V
0.47u
D7107
B0HCMM000014
D7108
B0HCMM000014
L7105
J0JJC0000011
L7106
J0JJC0000011
78V_R
R7127
2.2
R7131
2.2
ZA7101
K4CD01000013
ZA7102
K4CD01000013
ZA7103
K4CD01000013
ZA7104
K4CD01000013
ZA7105
K4CD01000013
TO
PANEL DATA
DRIVER
CA3
TERM
C1_5V
5V
AB_ODEU
AB_CLRU
DM
NC
VDD2
GND
ODE
VDD1
FDET1
FX
CLR
BLK
A1
A2
A3
A4
A5
A6
LEN
FS
FDET
R7123
100
R7133
100
AB_DUC17
AB_DUB17
AB_DUA17
AB_DUC16
AB_DUB16
AB_DUA16
CLK22
PCR_N
LE3
CLK12
C7111
50V
100p
1
2
3
4
5
6

C1-BOARD TNPA3561 (2/2)

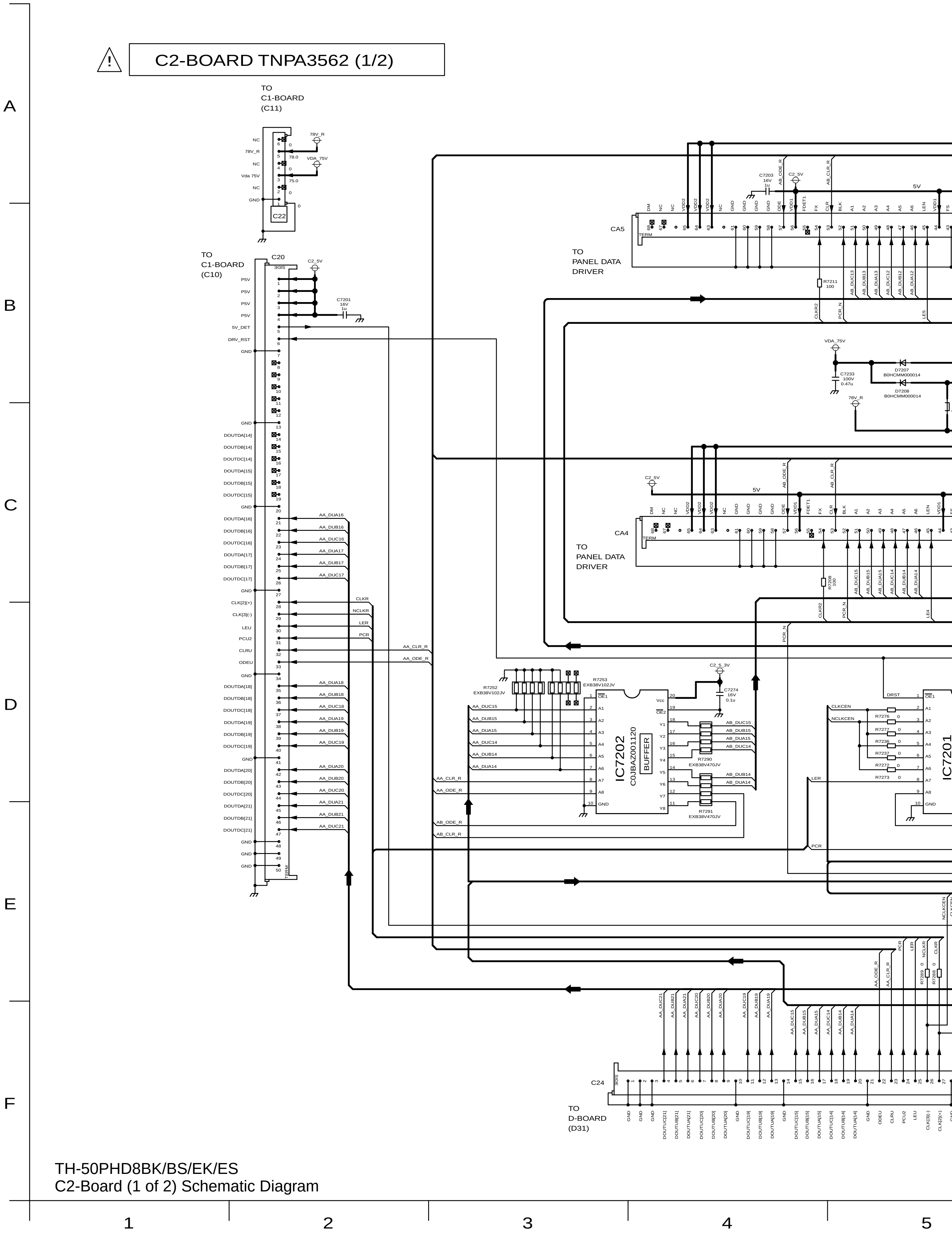


78V_R
VDA_75V
78.0
75.0
NC
78V_R
Vda 75V
GND
C11
TO
C2-BOARD
(C22)
C1_5V
C1_5_3V
R7184
0
C1_5_3V_B
R7171
C10
TO
C2-BOARD
(C20)
R7186
22k
R7185
C7139
16V
1u
R7187
100k
P5V
5V_DET
DRV_RST
GND
DOUTDA[14]
DOUTDB[14]
DOUTDC[14]
DOUTDA[15]
DOUTDB[15]
DOUTDC[15]
DOUTDA[16]
DOUTDB[16]
DOUTDC[16]
DOUTDA[17]
DOUTDB[17]
DOUTDC[17]
CLK[2](+)
CLK[3](-)
LEU
PCU2
CLRU
ODEU
DOUTDA[18]
DOUTDB[18]
DOUTDC[18]
DOUTDA[19]
DOUTDB[19]
DOUTDC[19]
DOUTDA[20]
DOUTDB[20]
DOUTDC[20]
DOUTDA[21]
DOUTDB[21]
DOUTDC[21]
SIDE
ZA7104
K4CD01000013
ZA7105
K4CD01000013
C7125
16V
1u
AA_CLRU
AA_ODEU
AB_ODEU
AB_CLRU
AB_DUB16
AB_DUA16
LE3
R7141
EXB38V102JV
R7142
EXB38V102JV
IC7104
C0JBAZ001120
BUFFER
C7136
16V
0.1u
R7159
EXB38V470JV
R7160
EXB38V470JV
R7143
R7144
IC7105
C7137
R7161
R7162
R7145
R7146
IC7106
C7138
R7163
R7164
R7102
10k
PCR_N
PCR
CLKR
NCLKR
LER
IC7102
C1_5_3V_B
C7130
16V
0.1u
R7134
R7135
R7136
R7137
R7138
R7139
R7140
CLK11
CLK12
CLK21
CLK22
LE1
LE2
LE3

TH-50PHD8BK/BS/EK/ES
C1-Board (2 of 2) Schematic Diagram

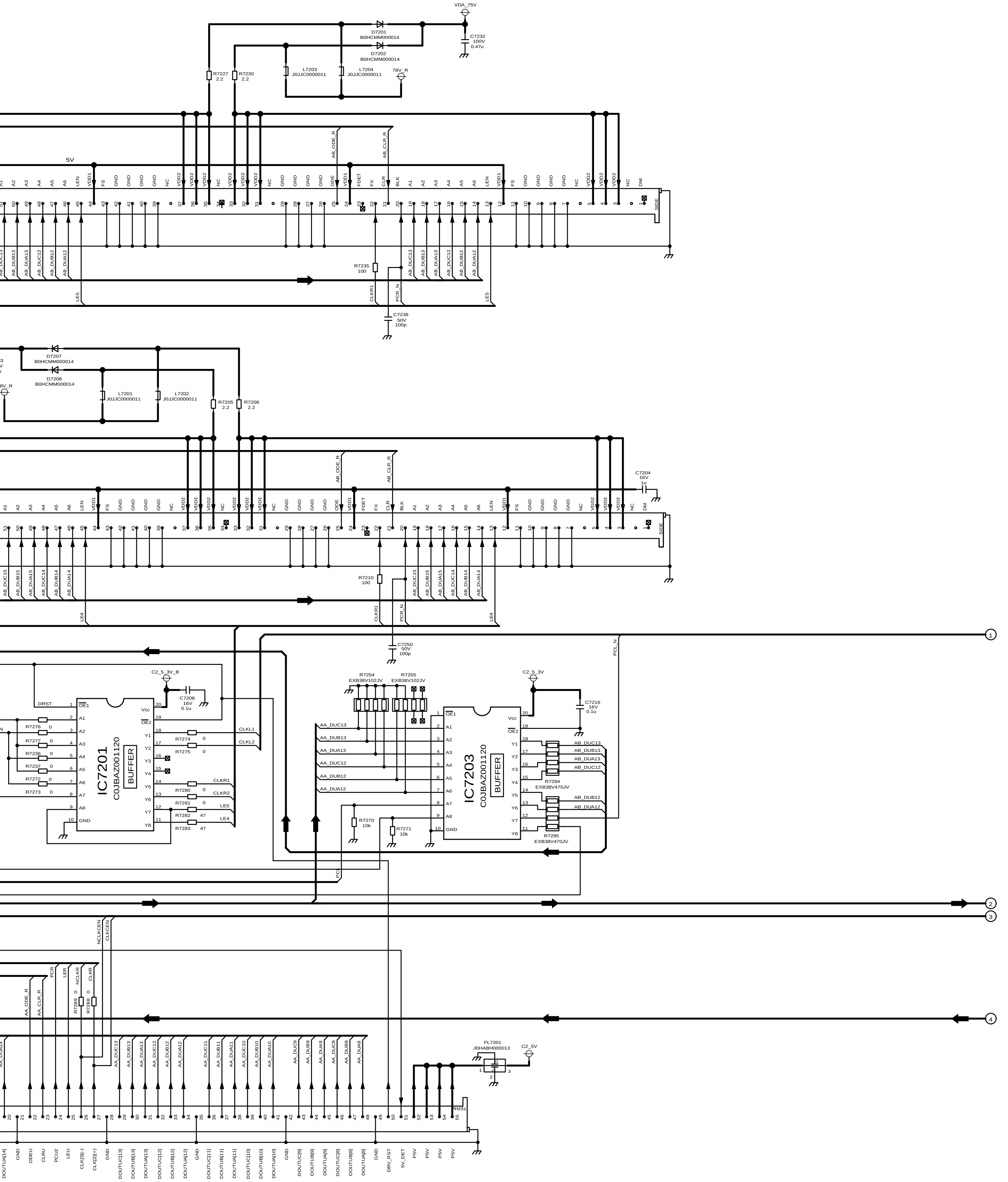
12 13 14 15

15.35. C2-Board (1 of 2) Schematic Diagram



A
B
C
D
E
F
1
2
3
4
5
C2-BOARD TNPA3562 (1/2)
TO
C1-BOARD
(C11)
C22
NC
78V_R
NC
Vda 75V
NC
GND
78V_R
VDA_75V
78.0
75.0
TO
C1-BOARD
(C10)
C20
C2_5V
C7201
16V
1u
P5V
P5V
P5V
P5V
5V_DET
DRV_RST
GND
DOUTDA[14]
DOUTDB[14]
DOUTDC[14]
DOUTDA[15]
DOUTDB[15]
DOUTDC[15]
DOUTDA[16]
DOUTDB[16]
DOUTDC[16]
DOUTDA[17]
DOUTDB[17]
DOUTDC[17]
CLK[2](+)
CLK[3](-)
LEU
PCU2
CLRU
ODEU
DOUTDA[18]
DOUTDB[18]
DOUTDC[18]
DOUTDA[19]
DOUTDB[19]
DOUTDC[19]
DOUTDA[20]
DOUTDB[20]
DOUTDC[20]
DOUTDA[21]
DOUTDB[21]
DOUTDC[21]
TERM
AA_DUA16
AA_DUB16
AA_DUC16
AA_DUA17
AA_DUB17
AA_DUC17
CLKR
NCLKR
LER
PCR
AA_CLR_R
AA_ODE_R
AA_DUA18
AA_DUB18
AA_DUC18
AA_DUA19
AA_DUB19
AA_DUC19
AA_DUA20
AA_DUB20
AA_DUC20
AA_DUA21
AA_DUB21
AA_DUC21
CA5
TO
PANEL DATA
DRIVER
C7203
16V
1u
C2_5V
5V
AB_ODE_R
AB_CLR_R
R7211
100
CLKR2
PCR_N
LE5
AB_DUC13
AB_DUB13
AB_DUC12
AB_DUB12
AB_DUC12
DM NC NC VDD2 VDD2 NC GND GND GND ODE VDD1 FDET1 FX CLR BLK A1 A2 A3 A4 A5 A6 LEN VDD1 FS
VDA_75V
C7233
100V
0.47u
D7207
B0HCMM000014
D7208
B0HCMM000014
78V_R
CA4
TO
PANEL DATA
DRIVER
R7208
100
CLKR2
PCR_N
LE4
AB_DUC15
AB_DUB15
AB_DUA15
AB_DUC14
AB_DUB14
AB_DUA14
R7252
EXB38V102JV
R7253
EXB38V102JV
C2_5_3V
C7274
16V
0.1u
IC7202
C0JBAZ001120
BUFFER
OE1 A1 A2 A3 A4 A5 A6 A7 A8 GND
Vcc OE2 Y1 Y2 Y3 Y4 Y5 Y6 Y7 Y8
AA_DUC15
AA_DUB15
AA_DUA15
AA_DUC14
AA_DUB14
AA_DUA14
AB_DUC15
AB_DUB15
AB_DUA15
AB_DUC14
AB_DUB14
AB_DUA14
R7290
EXB38V470JV
R7291
EXB38V470JV
AA_CLR_R
AA_ODE_R
AB_ODE_R
AB_CLR_R
IC7201
DRST
CLKCEN
NCLKCEN
R7276
R7277
R7236
R7237
R7272
R7273
LER
PCR
NCLKCEN
PCR
LER
NCLKR
CLKR
AA_ODE_R
AA_CLR_R
R7289
R7288
C24
TO
D-BOARD
(D31)
AA_DUC21
AA_DUB21
AA_DUA21
AA_DUC20
AA_DUB20
AA_DUA20
AA_DUC19
AA_DUB19
AA_DUA19
AA_DUC15
AA_DUB15
AA_DUA15
AA_DUC14
AA_DUB14
AA_DUA14
GND GND GND DOUTUC[21] DOUTUB[21] DOUTUA[21] DOUTUC[20] DOUTUB[20] DOUTUA[20] GND DOUTUC[19] DOUTUB[19] DOUTUA[19] GND DOUTUC[15] DOUTUB[15] DOUTUA[15] DOUTUC[14] DOUTUB[14] DOUTUA[14] GND ODEU CLRU PCU2 LEU CLK[3](-) CLK[2](+)

TH-50PHD8BK/BS/EK/ES
C2-Board (1 of 2) Schematic Diagram

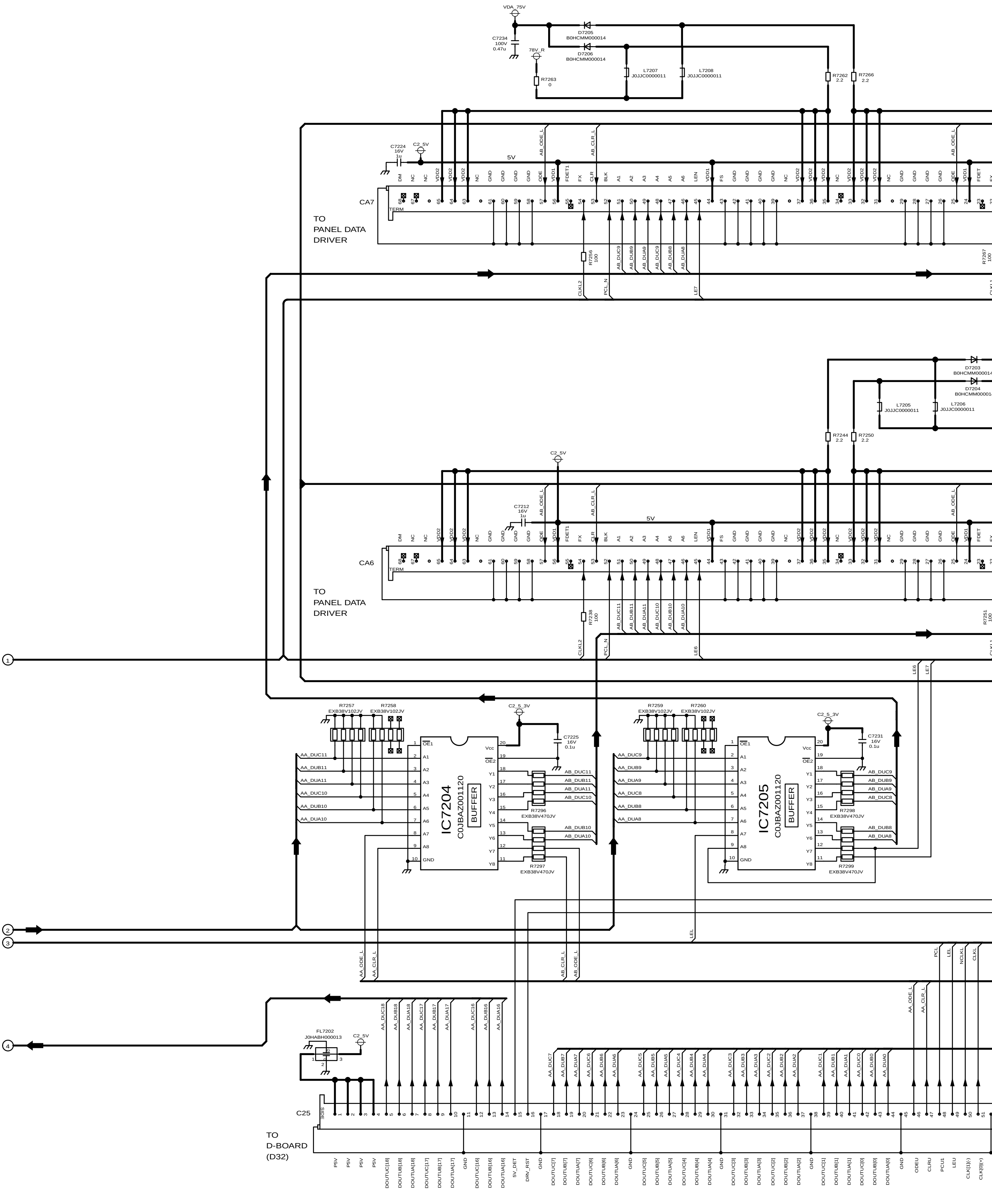

VDA_75V
D7201
B0HCMM000014
D7202
B0HCMM000014
C7232
100V
0.47u
L7203
J0JJC0000011
L7204
J0JJC0000011
78V_R
R7227
2.2
R7230
2.2
5V
R7235
100
C7238
50V
100p
D7207
B0HCMM000014
D7208
B0HCMM000014
L7201
J0JJC0000011
L7202
J0JJC0000011
R7205
2.2
R7206
2.2
C7204
16V
1u
R7210
100
C7250
50V
100p
IC7201
C0JBAZ001120
BUFFER
C2_5_3V_B
C7208
16V
0.1u
IC7203
C0JBAZ001120
BUFFER
C2_5_3V
C7216
16V
0.1u
R7254
EXB38V102JV
R7255
EXB38V102JV
R7294
EXB38V470JV
R7295
EXB38V470JV
R7270
10k
R7271
10k
FL7201
J0HABH000013
C2_5V
1
2
3
4

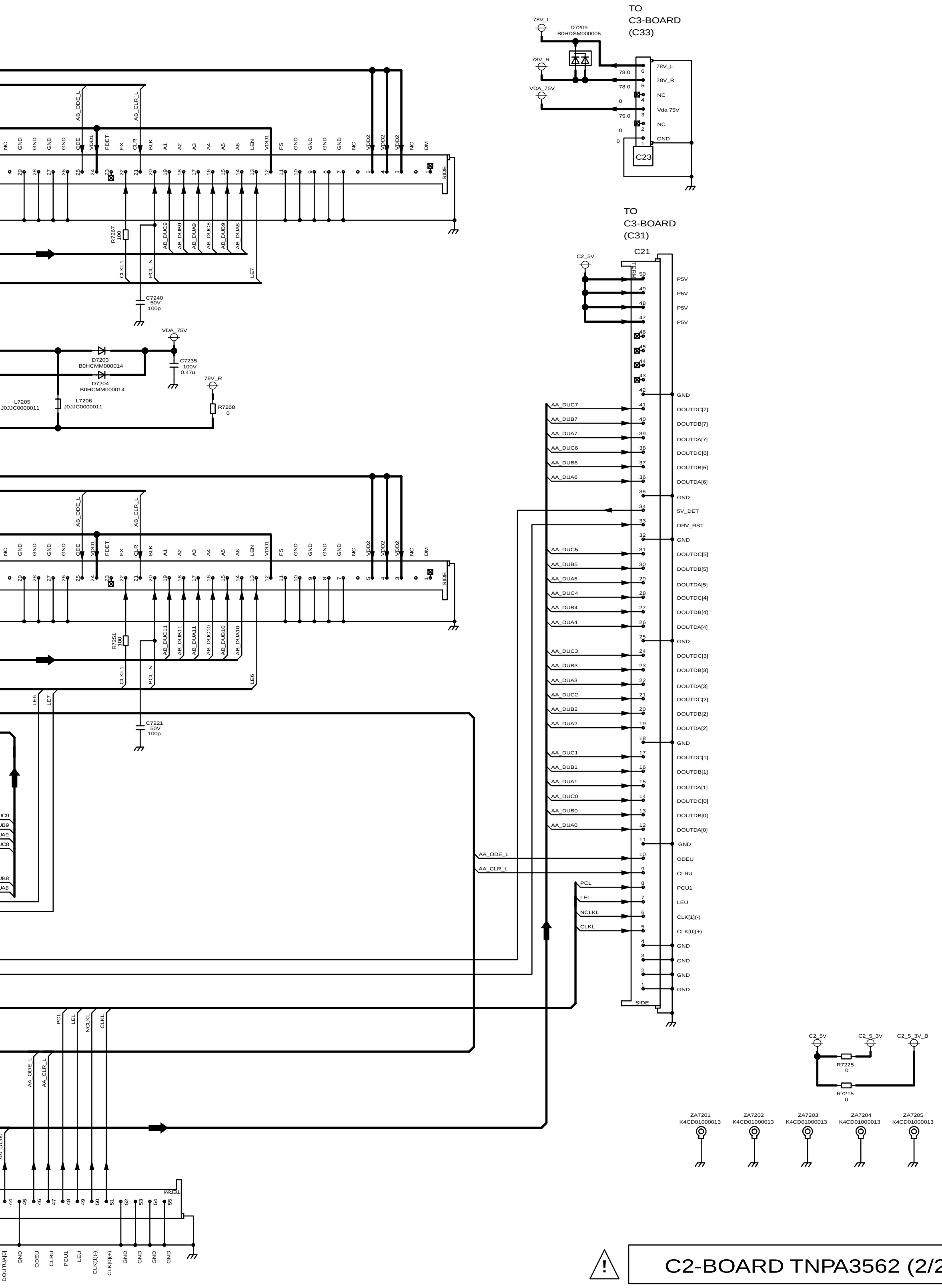
TH-50PHD8BK/BS/EK/ES

C2-Board (1 of 2) Schematic Diagram

5 6 7 8 9

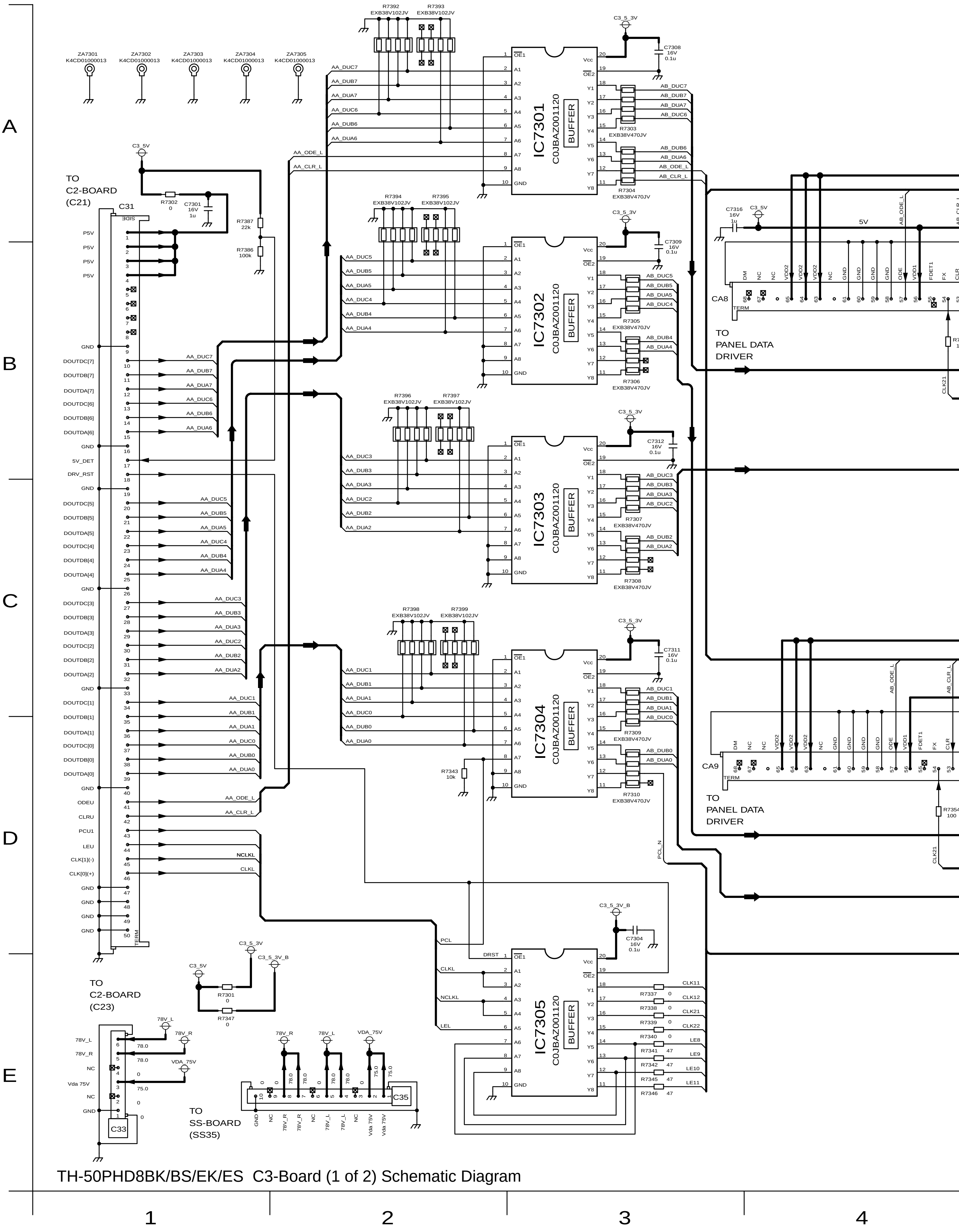
15.36. C2-Board (2 of 2) Schematic Diagram


VDA_75V
C7234
100V
0.47u
D7205
B0HCMM000014
D7206
B0HCMM000014
78V_R
R7263
0
L7207
J0JJC0000011
L7208
J0JJC0000011
R7262
2.2
R7266
2.2
C7224
16V
1u
C2_5V
5V
CA7
TERM
TO
PANEL DATA
DRIVER
R7256
100
CLKL2
PCL_N
LE7
D7203
B0HCMM000014
D7204
B0HCMM000014
L7205
J0JJC0000011
L7206
J0JJC0000011
R7244
2.2
R7250
2.2
C7212
16V
1u
CA6
TO
PANEL DATA
DRIVER
R7238
100
LE6
1
R7257
EXB38V102JV
R7258
EXB38V102JV
C2_5_3V
C7225
16V
0.1u
IC7204
C0JBAZ001120
BUFFER
R7296
EXB38V470JV
R7297
EXB38V470JV
R7259
EXB38V102JV
R7260
EXB38V102JV
C7231
16V
0.1u
IC7205
C0JBAZ001120
BUFFER
R7298
EXB38V470JV
R7299
EXB38V470JV
2
3
LEL
4
FL7202
J0HABH000013
C2_5V
C25
TO
D-BOARD
(D32)
P5V
5V_DET
DRV_RST
GND

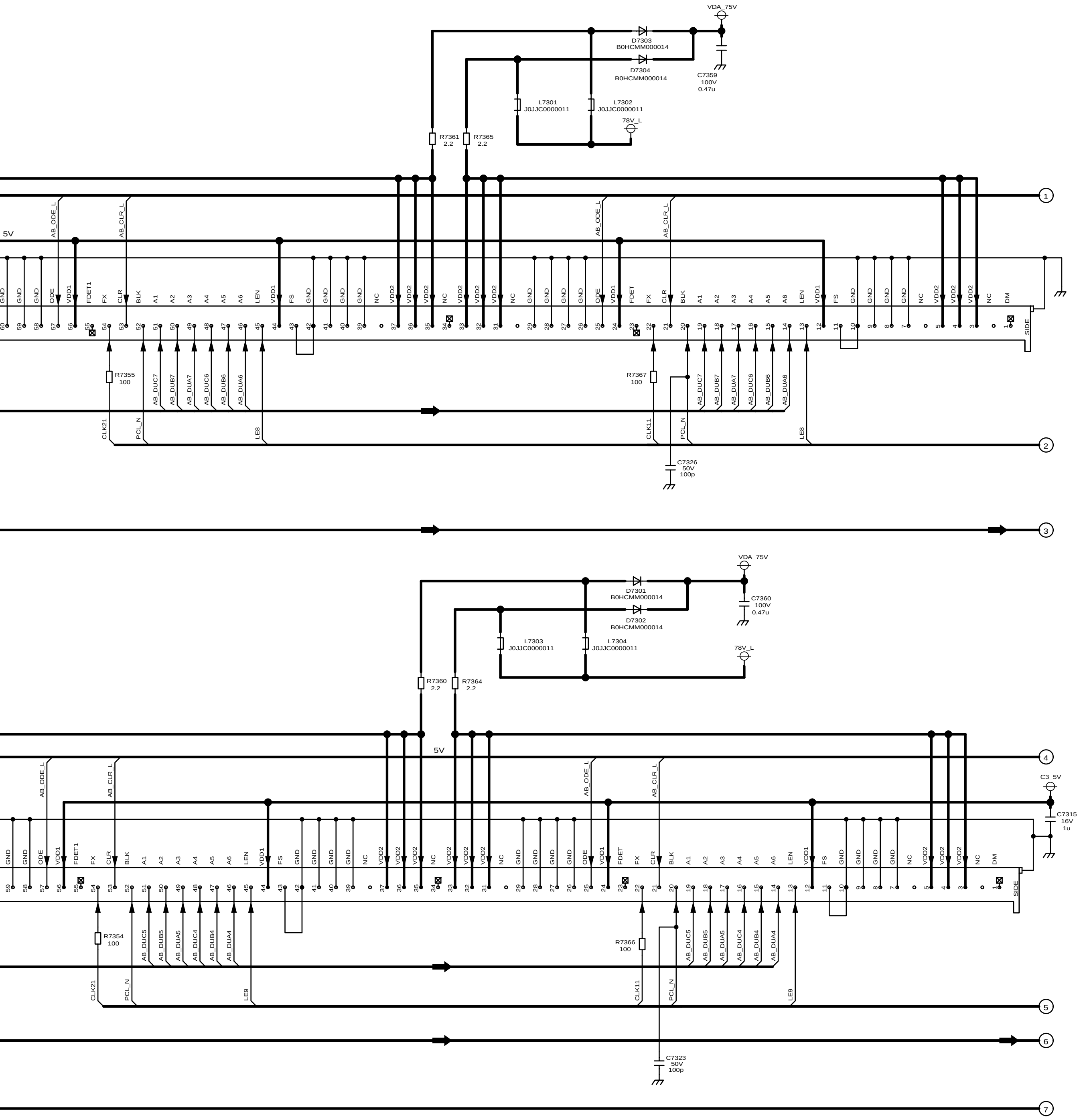

TO
C3-BOARD
(C33)
78V_L
D7209
B0HDSM000005
78V_R
VDA_75V
78.0
78.0
0
75.0
0
0
C23
78V_L
78V_R
NC
Vda 75V
NC
GND
AB_ODE_L
AB_CLR_L
NC
GND
ODE
VDD1
FDET
FX
CLR
BLK
A1
A2
A3
A4
A5
A6
LEN
VDD1
FS
VDD2
DM
SIDE
R7267
AB_DUC9
AB_DUB9
AB_DUA9
AB_DUC8
AB_DUB8
AB_DUA8
CLKL1
PCL_N
LE7
C7240
50V
100p
VDA_75V
D7203
B0HCMM000014
D7204
B0HCMM000014
C7235
100V
0.47u
78V_R
L7205
J0JJC0000011
L7206
J0JJC0000011
R7268
0
TO
C3-BOARD
(C31)
C21
C2_5V
P5V
P5V
P5V
P5V
GND
DOUTDC[7]
DOUTDB[7]
DOUTDA[7]
DOUTDC[6]
DOUTDB[6]
DOUTDA[6]
GND
5V_DET
DRV_RST
GND
DOUTDC[5]
DOUTDB[5]
DOUTDA[5]
DOUTDC[4]
DOUTDB[4]
DOUTDA[4]
GND
DOUTDC[3]
DOUTDB[3]
DOUTDA[3]
DOUTDC[2]
DOUTDB[2]
DOUTDA[2]
GND
DOUTDC[1]
DOUTDB[1]
DOUTDA[1]
DOUTDC[0]
DOUTDB[0]
DOUTDA[0]
GND
ODEU
CLRU
PCU1
LEU
CLK[1](-)
CLK[0](+)
GND
GND
GND
GND
SIDE
AA_DUC7
AA_DUB7
AA_DUA7
AA_DUC6
AA_DUB6
AA_DUA6
AA_DUC5
AA_DUB5
AA_DUA5
AA_DUC4
AA_DUB4
AA_DUA4
AA_DUC3
AA_DUB3
AA_DUA3
AA_DUC2
AA_DUB2
AA_DUA2
AA_DUC1
AA_DUB1
AA_DUA1
AA_DUC0
AA_DUB0
AA_DUA0
AA_ODE_L
AA_CLR_L
PCL
LEL
NCLKL
CLKL
R7251
AB_DUC11
AB_DUB11
AB_DUA11
AB_DUC10
AB_DUB10
AB_DUA10
LE6
LE7
C7221
50V
100p
AA_ODE_L
AA_CLR_L
TERM
DOUTDA[0]
GND
ODEU
CLRU
PCU1
LEU
CLK[1](-)
CLK[0](+)
GND
C2_5V
C2_5_3V
C2_5_3V_B
R7225
0
R7215
0
ZA7201
K4CD01000013
ZA7202
K4CD01000013
ZA7203
K4CD01000013
ZA7204
K4CD01000013
ZA7205
K4CD01000013
14
15
16
17
18

⚠ C2-BOARD TNPA3562 (2/2)

15.37. C3-Board (1 of 2) Schematic Diagram


A
B
C
D
E
1
2
3
4
ZA7301 K4CD01000013
ZA7302 K4CD01000013
ZA7303 K4CD01000013
ZA7304 K4CD01000013
ZA7305 K4CD01000013
R7392 EXB38V102JV
R7393 EXB38V102JV
C3_5_3V
C7308 16V 0.1u
IC7301
C0JBAZ001120
BUFFER
R7303 EXB38V470JV
R7304 EXB38V470JV
AA_DUC7
AA_DUB7
AA_DUA7
AA_DUC6
AA_DUB6
AA_DUA6
AA_ODE_L
AA_CLR_L
AB_DUC7
AB_DUB7
AB_DUA7
AB_DUC6
AB_DUB6
AB_DUA6
AB_ODE_L
AB_CLR_L
OE1
A1
A2
A3
A4
A5
A6
A7
A8
GND
Vcc
OE2
Y1
Y2
Y3
Y4
Y5
Y6
Y7
Y8
C3_5V
TO
C2-BOARD
(C21)
C31
R7302 0
C7301 16V 1u
R7387 22k
R7386 100k
P5V
GND
DOUTDC[7]
DOUTDB[7]
DOUTDA[7]
DOUTDC[6]
DOUTDB[6]
DOUTDA[6]
5V_DET
DRV_RST
DOUTDC[5]
DOUTDB[5]
DOUTDA[5]
DOUTDC[4]
DOUTDB[4]
DOUTDA[4]
DOUTDC[3]
DOUTDB[3]
DOUTDA[3]
DOUTDC[2]
DOUTDB[2]
DOUTDA[2]
DOUTDC[1]
DOUTDB[1]
DOUTDA[1]
DOUTDC[0]
DOUTDB[0]
DOUTDA[0]
ODEU
CLRU
PCU1
LEU
CLK[1](-)
CLK[0](+)
TERM
R7394 EXB38V102JV
R7395 EXB38V102JV
C7309 16V 0.1u
IC7302
C0JBAZ001120
BUFFER
R7305 EXB38V470JV
R7306 EXB38V470JV
AA_DUC5
AA_DUB5
AA_DUA5
AA_DUC4
AA_DUB4
AA_DUA4
AB_DUC5
AB_DUB5
AB_DUA5
AB_DUC4
AB_DUB4
AB_DUA4
R7396 EXB38V102JV
R7397 EXB38V102JV
C7312 16V 0.1u
IC7303
C0JBAZ001120
BUFFER
R7307 EXB38V470JV
R7308 EXB38V470JV
AA_DUC3
AA_DUB3
AA_DUA3
AA_DUC2
AA_DUB2
AA_DUA2
AB_DUC3
AB_DUB3
AB_DUA3
AB_DUC2
AB_DUB2
AB_DUA2
R7398 EXB38V102JV
R7399 EXB38V102JV
C7311 16V 0.1u
IC7304
C0JBAZ001120
BUFFER
R7309 EXB38V470JV
R7310 EXB38V470JV
R7343 10k
AA_DUC1
AA_DUB1
AA_DUA1
AA_DUC0
AA_DUB0
AA_DUA0
AB_DUC1
AB_DUB1
AB_DUA1
AB_DUC0
AB_DUB0
AB_DUA0
NCLKL
CLKL
PCL_N
C3_5_3V_B
C7304 16V 0.1u
IC7305
C0JBAZ001120
BUFFER
PCL
DRST
CLKL
NCLKL
LEL
R7337 0
R7338 0
R7339 0
R7340 0
R7341 47
R7342 47
R7345 47
R7346 47
CLK11
CLK12
CLK21
CLK22
LE8
LE9
LE10
LE11
C7316 16V 1u
5V
AB_ODE_L
AB_CLR_L
DM
NC
VDD2
GND
ODE
VDD1
FDET1
FX
CLR
CA8
CA9
TO
PANEL DATA
DRIVER
CLK21
R7354 100
TO
C2-BOARD
(C23)
C3_5V
R7301 0
R7347 0
78V_L
78V_R
VDA_75V
78V_L
78V_R
NC
Vda 75V
GND
78.0
75.0
C33
C35
TO
SS-BOARD
(SS35)
Vda 75V

TH-50PHD8BK/BS/EK/ES C3-Board (1 of 2) Schematic Diagram


VDA_75V
D7303
B0HCMM000014
D7304
B0HCMM000014
C7359
100V
0.47u
L7301
J0JJC0000011
L7302
J0JJC0000011
78V_L
R7361
2.2
R7365
2.2
①
5V
AB_ODE_L
AB_CLR_L
GND
ODE
VDD1
FDET1
FX
CLR
BLK
A1
A2
A3
A4
A5
A6
LEN
FS
NC
VDD2
FDET
DM
SIDE
R7355
100
R7367
100
AB_DUC7
AB_DUB7
AB_DUA7
AB_DUC6
AB_DUB6
AB_DUA6
CLK21
PCL_N
LE8
CLK11
②
C7326
50V
100p
③
VDA_75V
D7301
B0HCMM000014
D7302
B0HCMM000014
C7360
100V
0.47u
L7303
J0JJC0000011
L7304
J0JJC0000011
78V_L
R7360
2.2
R7364
2.2
5V
④
C3_5V
C7315
16V
1u
R7354
100
R7366
100
AB_DUC5
AB_DUB5
AB_DUA5
AB_DUC4
AB_DUB4
AB_DUA4
CLK21
PCL_N
LE9
CLK11
⑤
⑥
C7323
50V
100p
⑦

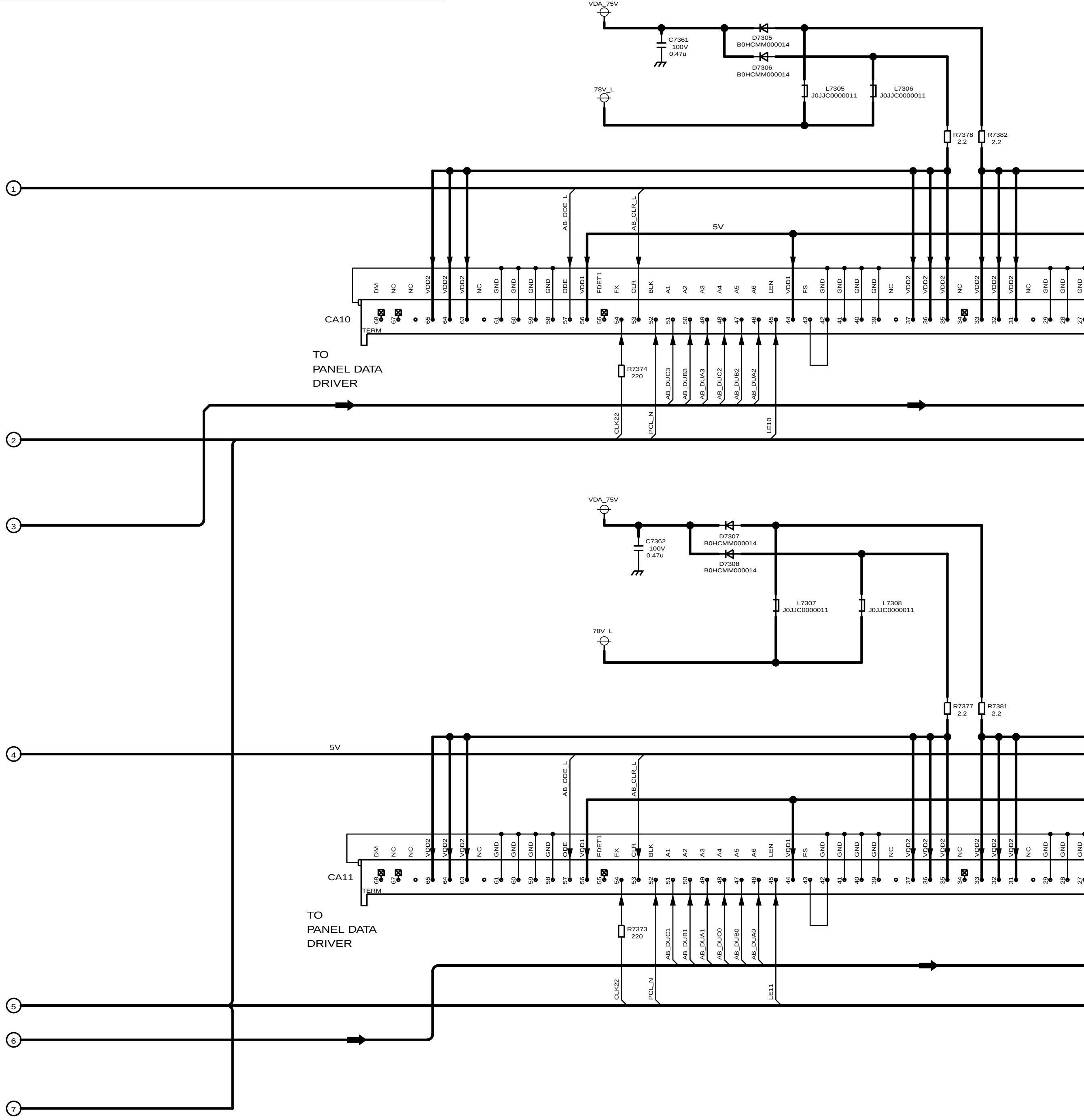
C3-BOARD TNPA3563 (1/2)

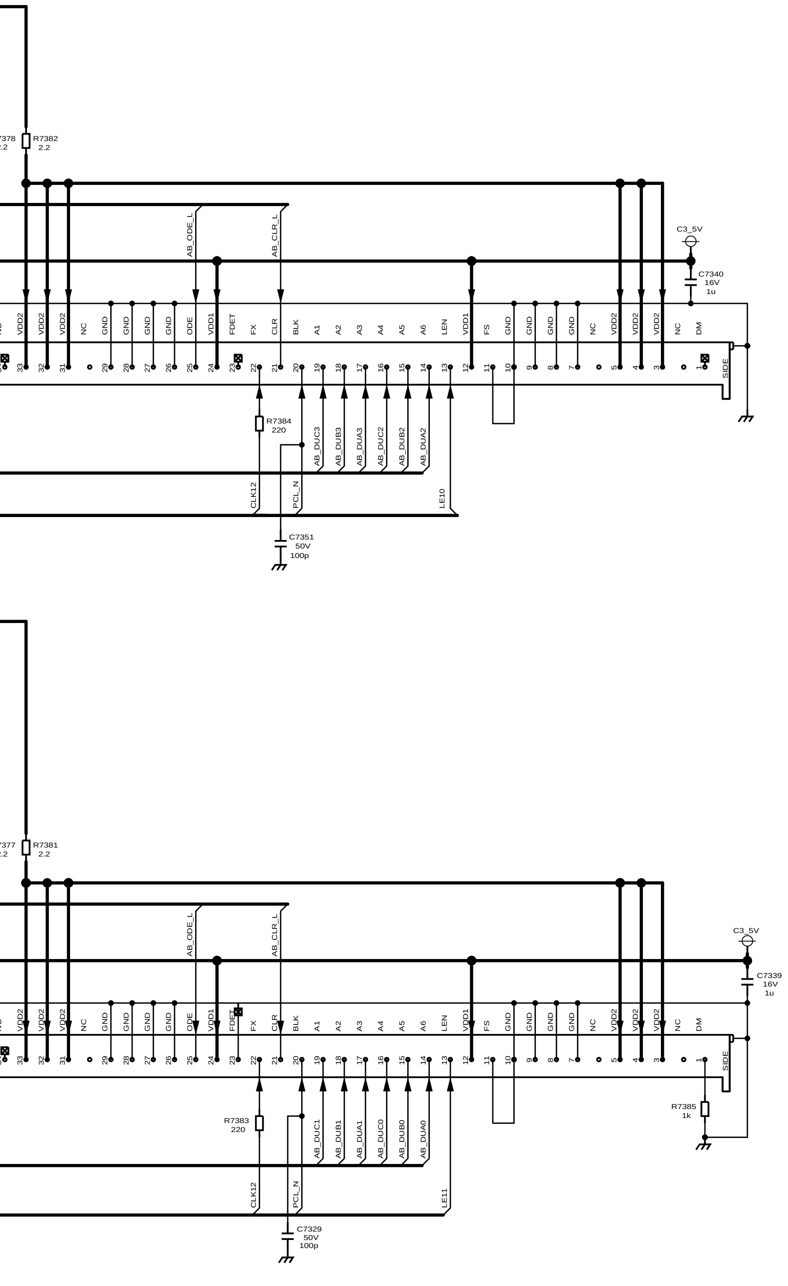
TH-50PHD8BK/BS/EK/ES
C3-Board (1 of 2) Schematic Diagram

4 5 6 7 8

15.38. C3-Board (2 of 2) Schematic Diagram

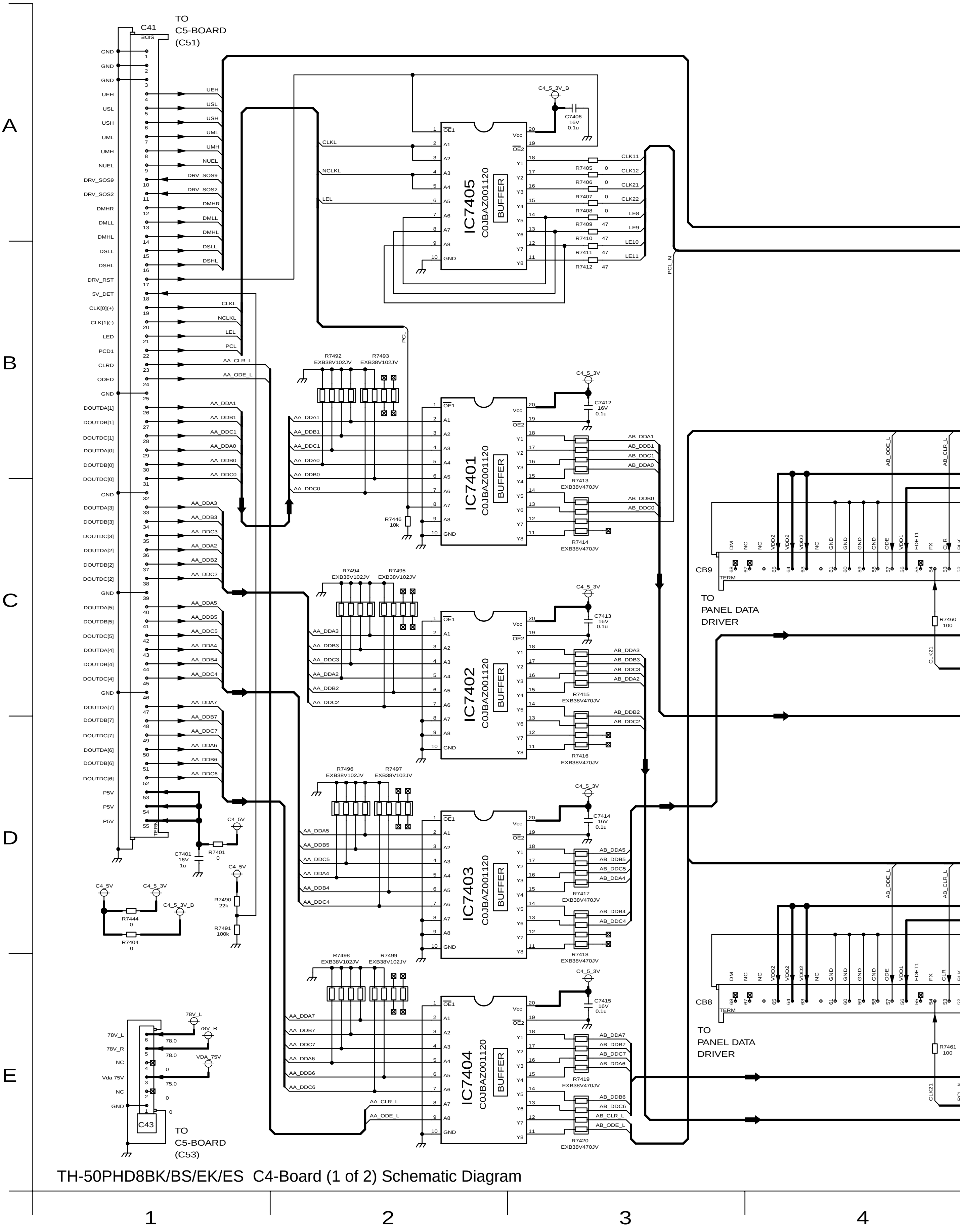
⚠ C3-BOARD TNPA3563 (2/2)


VDA_75V
C7361
100V
0.47u
D7305
B0HCMM000014
D7306
B0HCMM000014
78V_L
L7305
J0JJC0000011
L7306
J0JJC0000011
R7378
2.2
R7382
2.2
1
AB_ODE_L
AB_CLR_L
5V
DM
NC
NC
VDD2
VDD2
VDD2
NC
GND
GND
GND
GND
ODE
VDD1
FDET1
FX
CLR
BLK
A1
A2
A3
A4
A5
A6
LEN
VDD1
FS
GND
GND
GND
GND
NC
VDD2
VDD2
VDD2
NC
VDD2
VDD2
VDD2
NC
GND
GND
GND
CA10
TERM
TO
PANEL DATA
DRIVER
R7374
220
AB_DUC3
AB_DUB3
AB_DUA3
AB_DUC2
AB_DUB2
AB_DUA2
CLK22
PCL_N
LE10
2
3
VDA_75V
C7362
100V
0.47u
D7307
B0HCMM000014
D7308
B0HCMM000014
L7307
J0JJC0000011
L7308
J0JJC0000011
78V_L
R7377
2.2
R7381
2.2
4
5V
AB_ODE_L
AB_CLR_L
CA11
TERM
TO
PANEL DATA
DRIVER
R7373
220
AB_DUC1
AB_DUB1
AB_DUA1
AB_DUC0
AB_DUB0
AB_DUA0
CLK22
PCL_N
LE11
5
6
7


7378
.2
R7382
2.2
AB_ODE_L
AB_CLR_L
C3_5V
C7340
16V
1u
VDD2
VDD2
NC
GND
GND
GND
GND
ODE
VDD1
FDET
FX
CLR
BLK
A1
A2
A3
A4
A5
A6
LEN
VDD1
FS
GND
GND
GND
GND
NC
VDD2
VDD2
VDD2
NC
DM
33
32
31
29
28
27
26
25
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
5
4
3
1
SIDE
R7384
220
AB_DUC3
AB_DUB3
AB_DUA3
AB_DUC2
AB_DUB2
AB_DUA2
CLK12
PCL_N
LE10
C7351
50V
100p
7377
.2
R7381
2.2
AB_ODE_L
AB_CLR_L
C3_5V
C7339
16V
1u
R7385
1k
R7383
220
AB_DUC1
AB_DUB1
AB_DUA1
AB_DUC0
AB_DUB0
AB_DUA0
CLK12
PCL_N
LE11
C7329
50V
100p

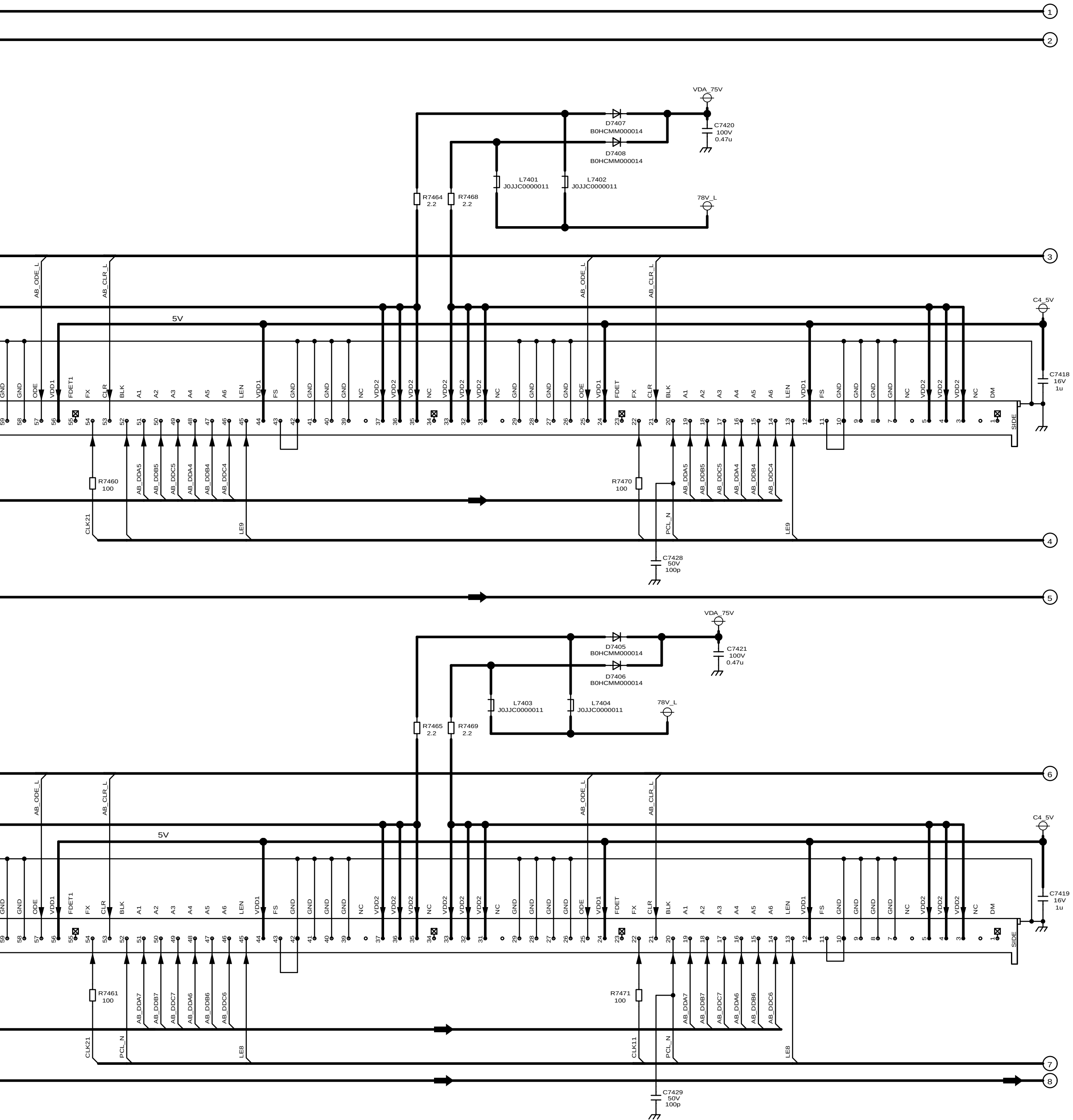
TH-50PHD8BK/BS/EK/ES
C3-Board (2 of 2) Schematic Diagram

15.39. C4-Board (1 of 2) Schematic Diagram


A
B
C
D
E
1
2
3
4
C41
TO
C5-BOARD
(C51)
GND
UEH
USL
USH
UML
UMH
NUEL
DRV_SOS9
DRV_SOS2
DMHR
DMLL
DMHL
DSLL
DSHL
DRV_RST
5V_DET
CLK[0](+)
CLK[1](-)
LED
PCD1
CLRD
ODED
DOUTDA[1]
DOUTDB[1]
DOUTDC[1]
DOUTDA[0]
DOUTDB[0]
DOUTDC[0]
DOUTDA[3]
DOUTDB[3]
DOUTDC[3]
DOUTDA[2]
DOUTDB[2]
DOUTDC[2]
DOUTDA[5]
DOUTDB[5]
DOUTDC[5]
DOUTDA[4]
DOUTDB[4]
DOUTDC[4]
DOUTDA[7]
DOUTDB[7]
DOUTDC[7]
DOUTDA[6]
DOUTDB[6]
DOUTDC[6]
P5V
TERM
IC7405
C0JBAZ001120
BUFFER
IC7401
C0JBAZ001120
BUFFER
IC7402
C0JBAZ001120
BUFFER
IC7403
C0JBAZ001120
BUFFER
IC7404
C0JBAZ001120
BUFFER
OE1
OE2
Vcc
GND
C4_5_3V_B
C4_5_3V
C4_5V
C7406
16V
0.1u
C7412
C7413
C7414
C7415
C7401
16V
1u
R7401
R7405
R7406
R7407
R7408
R7409
R7410
R7411
R7412
CLK11
CLK12
CLK21
CLK22
LE8
LE9
LE10
LE11
CLKL
NCLKL
LEL
PCL
PCL_N
AA_CLR_L
AA_ODE_L
R7492
R7493
R7494
R7495
R7496
R7497
R7498
R7499
EXB38V102JV
R7413
R7414
R7415
R7416
R7417
R7418
R7419
R7420
EXB38V470JV
R7446
10k
AB_DDA1
AB_DDB1
AB_DDC1
AB_DDA0
AB_DDB0
AB_DDC0
AB_DDA3
AB_DDB3
AB_DDC3
AB_DDA2
AB_DDB2
AB_DDC2
AB_DDA5
AB_DDB5
AB_DDC5
AB_DDA4
AB_DDB4
AB_DDC4
AB_DDA7
AB_DDB7
AB_DDC7
AB_DDA6
AB_DDB6
AB_DDC6
AB_CLR_L
AB_ODE_L
CB9
CB8
TO
PANEL DATA
DRIVER
R7460
100
R7461
100
CLK21
R7444
R7404
R7490
22k
R7491
100k
78V_L
78V_R
NC
Vda 75V
VDA_75V
C43
TO
C5-BOARD
(C53)

TH-50PHD8BK/BS/EK/ES C4-Board (1 of 2) Schematic Diagram

⚠ C4-BOARD TNPA3564 (1/2)

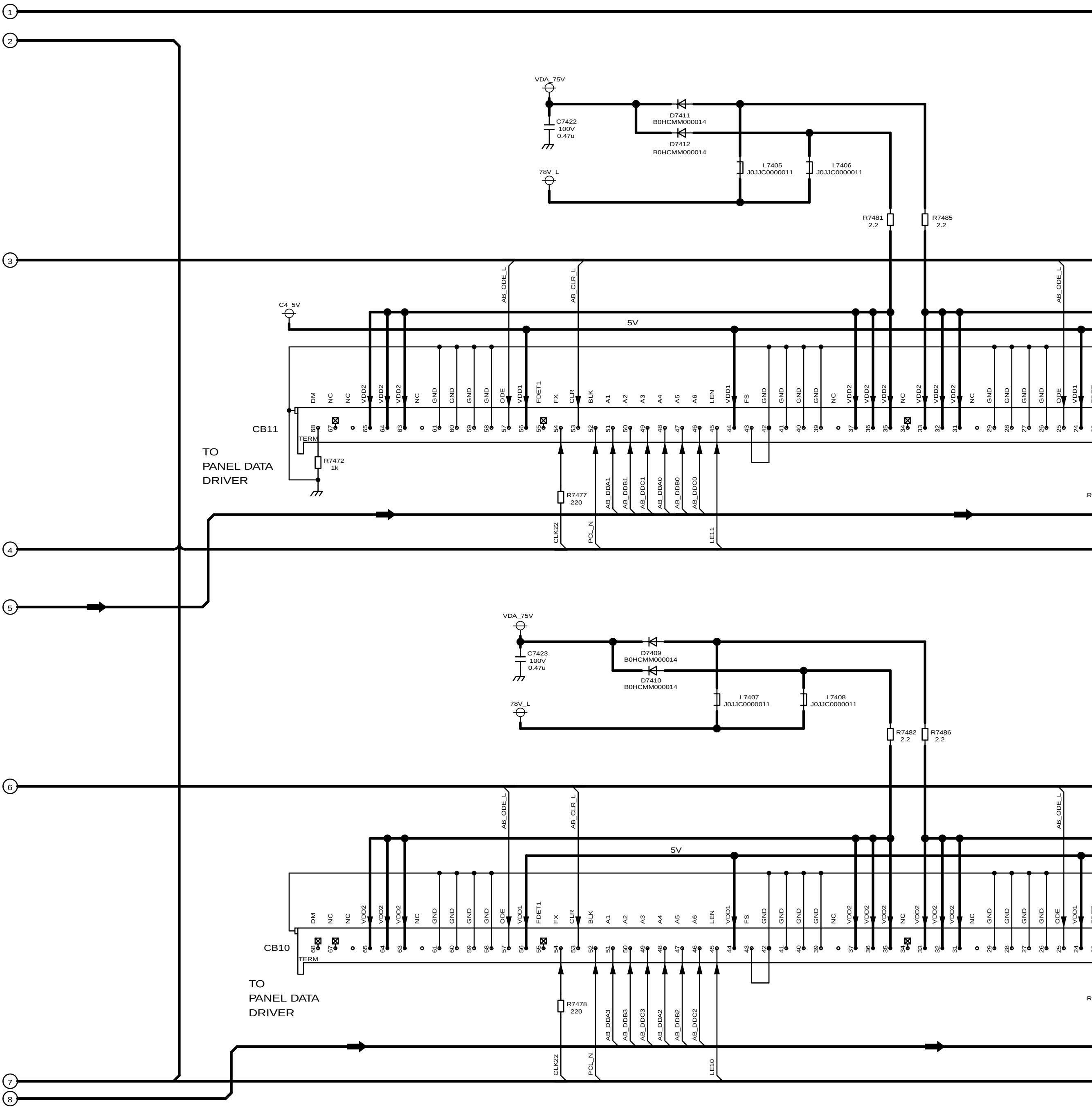


VDA_75V
D7407
B0HCMM000014
D7408
B0HCMM000014
C7420
100V
0.47u
L7401
J0JJC0000011
L7402
J0JJC0000011
R7464
2.2
R7468
2.2
78V_L
AB_ODE_L
AB_CLR_L
5V
C4_5V
C7418
16V
1u
GND
ODE
VDD1
FDET1
FX
CLR
BLK
A1
A2
A3
A4
A5
A6
LEN
FS
NC
VDD2
FDET
DM
SIDE
R7460
100
R7470
100
AB_DDA5
AB_DDB5
AB_DDC5
AB_DDA4
AB_DDB4
AB_DDC4
CLK21
LE9
PCL_N
C7428
50V
100p
VDA_75V
D7405
B0HCMM000014
D7406
B0HCMM000014
C7421
100V
0.47u
L7403
J0JJC0000011
L7404
J0JJC0000011
78V_L
R7465
2.2
R7469
2.2
C7419
16V
1u
R7461
100
R7471
100
AB_DDA7
AB_DDB7
AB_DDC7
AB_DDA6
AB_DDB6
AB_DDC6
CLK11
LE8
C7429
50V
100p
1
2
3
4
5
6
7
8

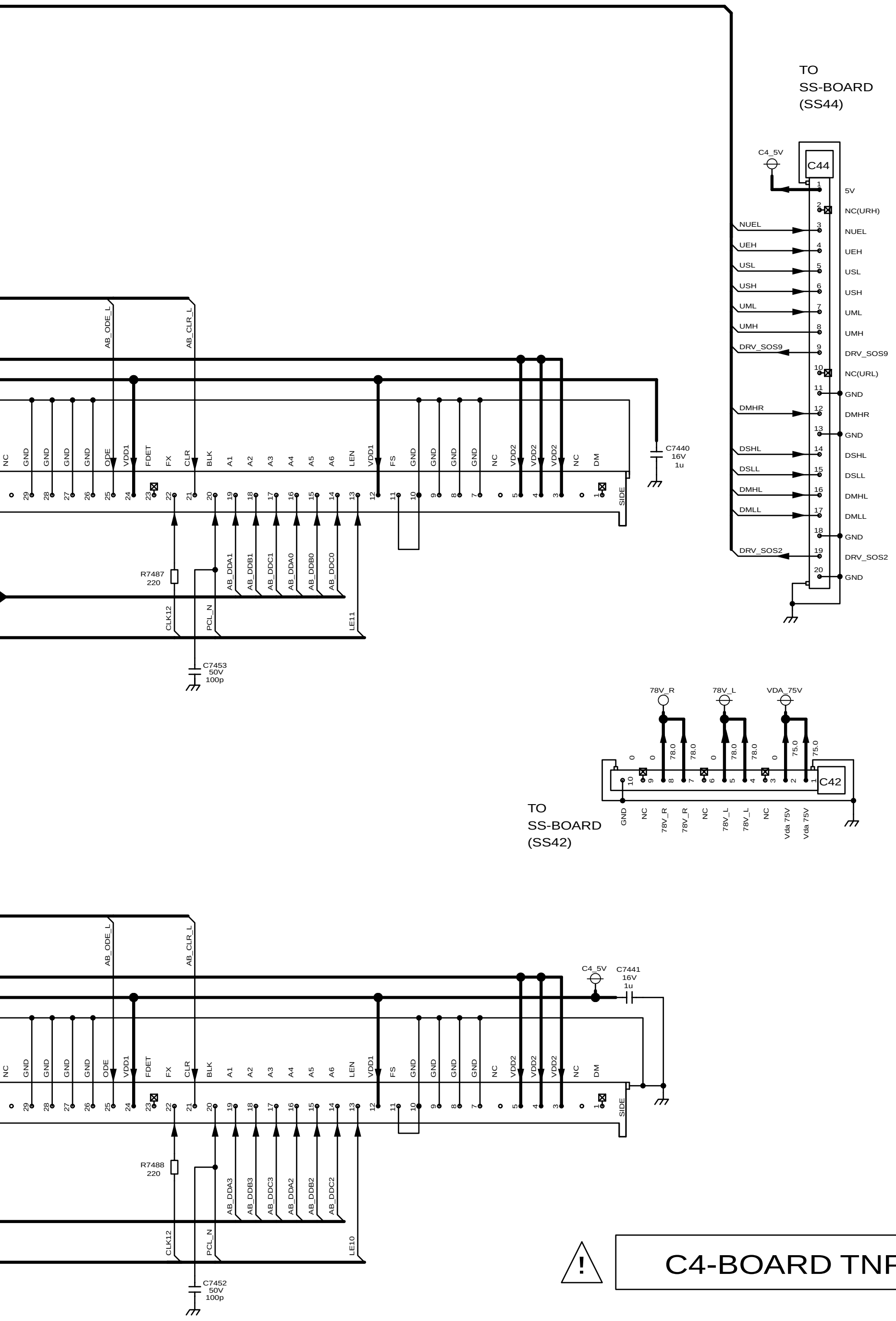
TH-50PHD8BK/BS/EK/ES
C4-Board (1 of 2) Schematic Diagram

4 5 6 7 8

15.40. C4-Board (2 of 2) Schematic Diagram



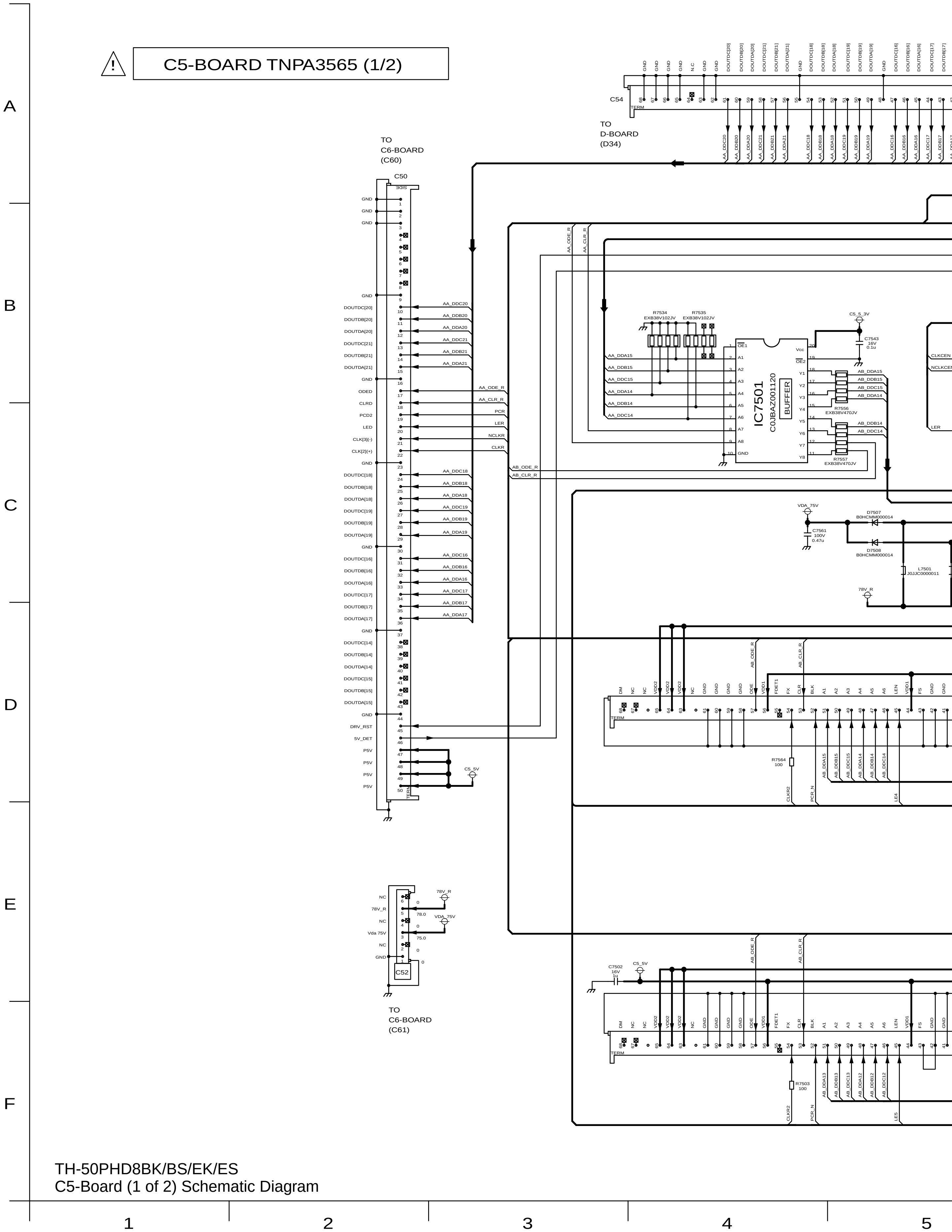
1
2
3
4
5
6
7
8
VDA_75V
C7422
100V
0.47u
D7411
B0HCMM000014
D7412
B0HCMM000014
L7405
J0JJC0000011
L7406
J0JJC0000011
78V_L
R7481
2.2
R7485
2.2
AB_ODE_L
AB_CLR_L
C4_5V
5V
DM
NC
VDD2
GND
ODE
VDD1
FDET1
FX
CLR
BLK
A1
A2
A3
A4
A5
A6
LEN
FS
CB11
TERM
R7472
1k
TO
PANEL DATA
DRIVER
R7477
220
AB_DDA1
AB_DDB1
AB_DDC1
AB_DDA0
AB_DDB0
AB_DDC0
CLK22
PCL_N
LE11
VDA_75V
C7423
100V
0.47u
D7409
B0HCMM000014
D7410
B0HCMM000014
L7407
J0JJC0000011
L7408
J0JJC0000011
78V_L
R7482
2.2
R7486
2.2
CB10
TERM
R7478
220
AB_DDA3
AB_DDB3
AB_DDC3
AB_DDA2
AB_DDB2
AB_DDC2
CLK22
PCL_N
LE10


TO
SS-BOARD
(SS44)
C4_5V
C44
5V
NC(URH)
NUEL
UEH
USL
USH
UML
UMH
DRV_SOS9
NC(URL)
GND
DMHR
GND
DSHL
DSLL
DMHL
DMLL
GND
DRV_SOS2
GND
AB_ODE_L
AB_CLR_L
C7440
16V
1u
NC GND GND GND GND ODE VDD1 FDET FX CLR BLK A1 A2 A3 A4 A5 A6 LEN VDD1 FS GND GND GND GND NC VDD2 VDD2 VDD2 NC DM
SIDE
R7487
220
AB_DDA1
AB_DDB1
AB_DDC1
AB_DDA0
AB_DDB0
AB_DDC0
CLK12
PCL_N
LE11
C7453
50V
100p
78V_R
78V_L
VDA_75V
78.0
75.0
C42
TO
SS-BOARD
(SS42)
GND NC 78V_R 78V_R NC 78V_L 78V_L NC Vda 75V Vda 75V
C4_5V
C7441
16V
1u
R7488
220
AB_DDA3
AB_DDB3
AB_DDC3
AB_DDA2
AB_DDB2
AB_DDC2
CLK12
PCL_N
LE10
C7452
50V
100p

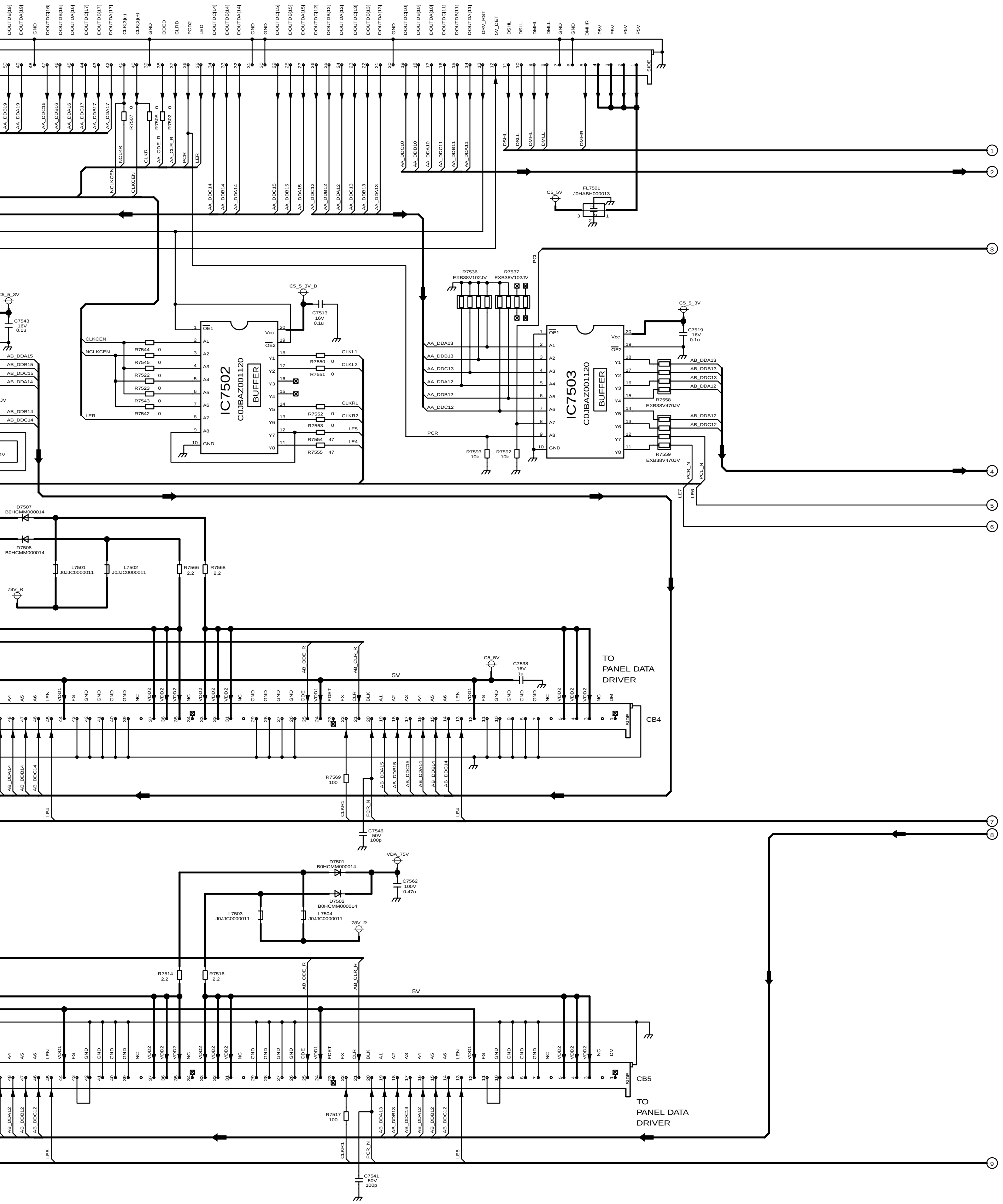
C4-BOARD TNPA3564 (2/2)

TH-50PHD8BK/BS/EK/ES
C4-Board (2 of 2) Schematic Diagram

15.41. C5-Board (1 of 2) Schematic Diagram



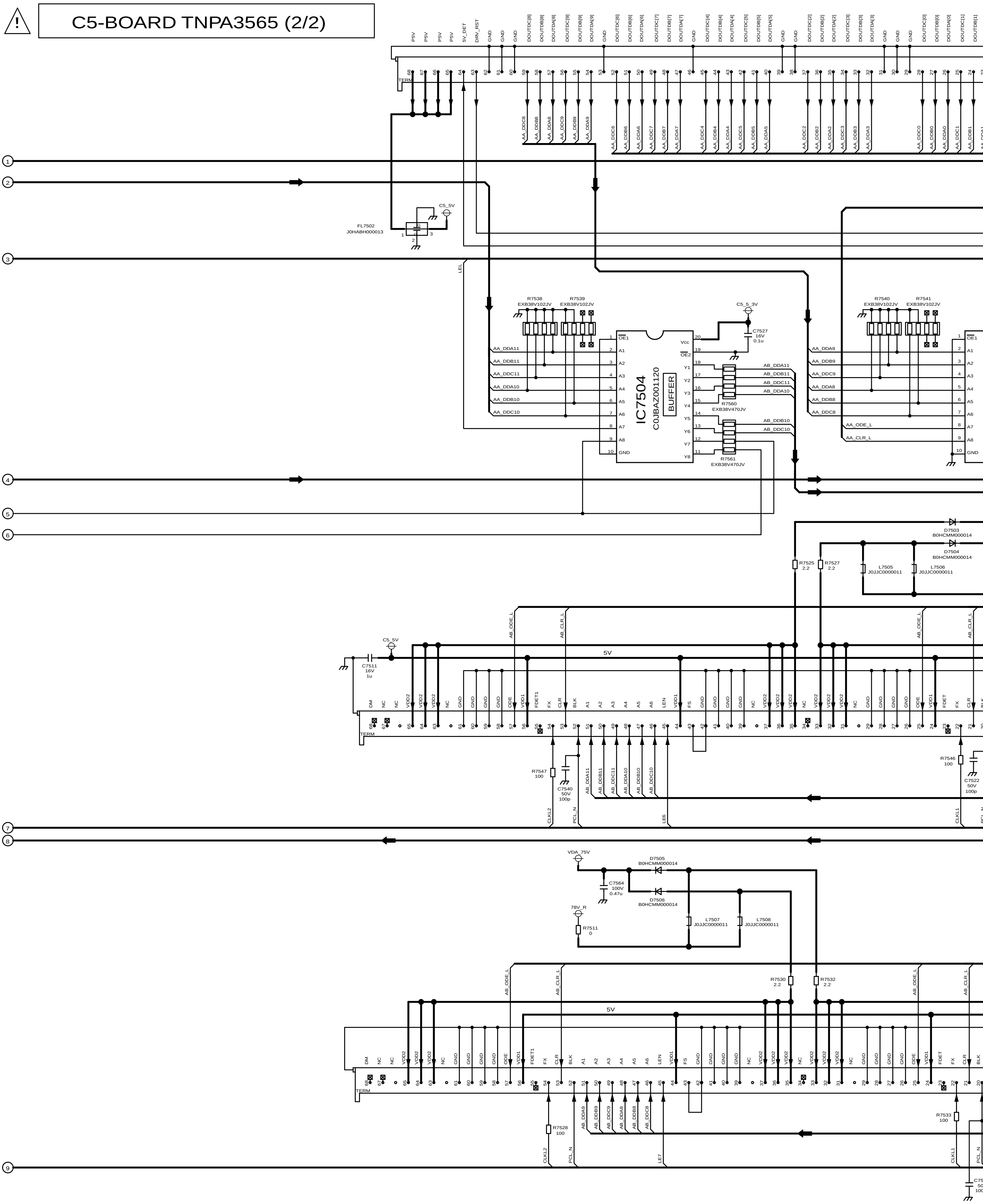
C5-BOARD TNPA3565 (1/2)
A
B
C
D
E
F
1
2
3
4
5
TO
C6-BOARD
(C60)
C50
SIDE
TO
D-BOARD
(D34)
C54
TERM
GND
N.C
DOUTDC[20]
DOUTDB[20]
DOUTDA[20]
DOUTDC[21]
DOUTDB[21]
DOUTDA[21]
DOUTDC[18]
DOUTDB[18]
DOUTDA[18]
DOUTDC[19]
DOUTDB[19]
DOUTDA[19]
DOUTDC[16]
DOUTDB[16]
DOUTDA[16]
DOUTDC[17]
DOUTDB[17]
DOUTDC[14]
DOUTDB[14]
DOUTDA[14]
DOUTDC[15]
DOUTDB[15]
DOUTDA[15]
ODED
CLRD
PCD2
LED
CLK[3](-)
CLK[2](+)
DRV_RST
5V_DET
P5V
AA_DDC20
AA_DDB20
AA_DDA20
AA_DDC21
AA_DDB21
AA_DDA21
AA_DDC18
AA_DDB18
AA_DDA18
AA_DDC19
AA_DDB19
AA_DDA19
AA_DDC16
AA_DDB16
AA_DDA16
AA_DDC17
AA_DDB17
AA_DDA17
AA_ODE_R
AA_CLR_R
PCR
LER
NCLKR
CLKR
AB_ODE_R
AB_CLR_R
C5_5V
R7534
EXB38V102JV
R7535
EXB38V102JV
AA_DDA15
AA_DDB15
AA_DDC15
AA_DDA14
AA_DDB14
AA_DDC14
IC7501
C0JBAZ001120
BUFFER
OE1
A1
A2
A3
A4
A5
A6
A7
A8
GND
Vcc
OE2
Y1
Y2
Y3
Y4
Y5
Y6
Y7
Y8
C5_5_3V
C7543
16V
0.1u
AB_DDA15
AB_DDB15
AB_DDC15
AB_DDA14
R7556
EXB38V470JV
AB_DDB14
AB_DDC14
R7557
EXB38V470JV
CLKCEN
NCLKCEN
LER
VDA_75V
C7561
100V
0.47u
D7507
B0HCMM000014
D7508
B0HCMM000014
L7501
J0JJC0000011
78V_R
DM
NC
VDD2
VDD1
ODE
FDET1
FX
CLR
BLK
LEN
FS
R7564
100
CLKR2
PCR_N
AB_DDA15
AB_DDB15
AB_DDC15
AB_DDA14
AB_DDB14
AB_DDC14
LE4
78V_R
VDA_75V
Vda 75V
78.0
75.0
0
C52
TO
C6-BOARD
(C61)
C7502
16V
1u
C5_5V
R7503
100
AB_DDA13
AB_DDB13
AB_DDC13
AB_DDA12
AB_DDB12
AB_DDC12
LE5


IC7502
C0JBAZ001120
BUFFER
IC7503
C0JBAZ001120
BUFFER
OE1
OE2
Vcc
GND
A1
A2
A3
A4
A5
A6
A7
A8
Y1
Y2
Y3
Y4
Y5
Y6
Y7
Y8
C5_5_3V_B
C7513
16V
0.1u
C5_5_3V
C7519
16V
0.1u
C7543
16V
0.1u
R7536
EXB38V102JV
R7537
EXB38V102JV
R7558
EXB38V470JV
R7559
EXB38V470JV
R7544
R7545
R7522
R7523
R7543
R7542
R7550
R7551
R7552
R7553
R7554
R7555
R7593
10k
R7592
10k
R7507
R7508
R7502
FL7501
J0HABH000013
C5_5V
CLKCEN
NCLKCEN
LER
CLKL1
CLKL2
CLKR1
CLKR2
LE5
LE4
PCR
PCL
PCR_N
PCL_N
LE7
LE6
AA_DDA13
AA_DDB13
AA_DDC13
AA_DDA12
AA_DDB12
AA_DDC12
AB_DDA13
AB_DDB13
AB_DDC13
AB_DDA12
AB_DDB12
AB_DDC12
AB_DDA15
AB_DDB15
AB_DDC15
AB_DDA14
AB_DDB14
AB_DDC14
DOUTDB[19]
DOUTDA[19]
GND
DOUTDC[16]
DOUTDB[16]
DOUTDA[16]
DOUTDC[17]
DOUTDB[17]
DOUTDA[17]
CLK[3](-)
CLK[2](+)
ODED
CLRD
PCD2
LED
DOUTDC[14]
DOUTDB[14]
DOUTDA[14]
DOUTDC[15]
DOUTDB[15]
DOUTDA[15]
DOUTDC[12]
DOUTDA[12]
DOUTDC[13]
DOUTDB[13]
DOUTDA[13]
DOUTDC[10]
DOUTDB[10]
DOUTDA[10]
DOUTDC[11]
DOUTDB[11]
DOUTDA[11]
DRV_RST
5V_DET
DSHL
DSLL
DMHL
DMLL
DMHR
P5V
SIDE
D7507
B0HCMM000014
D7508
B0HCMM000014
L7501
J0JJC0000011
L7502
J0JJC0000011
78V_R
R7566
2.2
R7568
2.2
C7538
16V
1u
5V
AB_ODE_R
AB_CLR_R
VDD1
VDD2
FS
LEN
NC
ODE
FDET
FX
CLR
BLK
DM
R7569
100
CLKR1
PCR_N
C7546
50V
100p
TO
PANEL DATA
DRIVER
CB4
VDA_75V
D7501
B0HCMM000014
D7502
B0HCMM000014
C7562
100V
0.47u
L7503
J0JJC0000011
L7504
J0JJC0000011
R7514
2.2
R7516
2.2
R7517
100
C7541
50V
100p
CB5
TO
PANEL DATA
DRIVER
①
②
③
④
⑤
⑥
⑦
⑧
⑨

TH-50PHD8BK/BS/EK/ES
C5-Board (1 of 2) Schematic Diagram

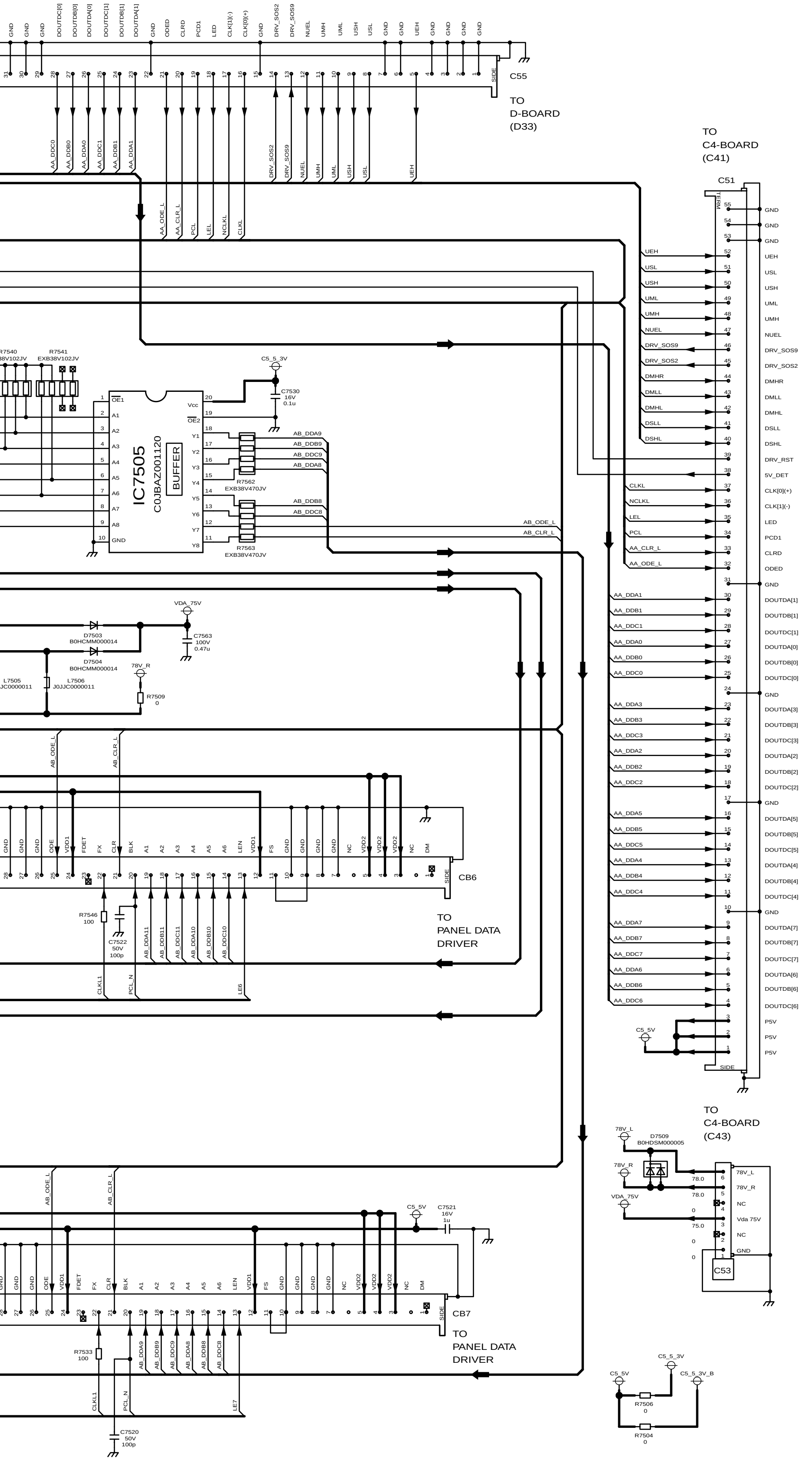
5	6	7	8	9

15.42. C5-Board (2 of 2) Schematic Diagram



C5-BOARD TNPA3565 (2/2)
P5V
5V_DET
DRV_RST
GND
DOUTDC[8]
DOUTDB[8]
DOUTDA[8]
DOUTDC[9]
DOUTDB[9]
DOUTDA[9]
TERM
AA_DDC8
AA_DDB8
AA_DDA8
AA_DDC9
AA_DDB9
AA_DDA9
FL7502
J0HABH000013
C5_5V
LEL
R7538
EXB38V102JV
R7539
EXB38V102JV
C5_5.3V
C7527
16V
0.1u
IC7504
C0JBAZ001120
BUFFER
OE1
OE2
Vcc
GND
AA_DDA11
AA_DDB11
AA_DDC11
AA_DDA10
AA_DDB10
AA_DDC10
AB_DDA11
AB_DDB11
AB_DDC11
AB_DDA10
AB_DDB10
AB_DDC10
R7560
EXB38V470JV
R7561
EXB38V470JV
R7540
EXB38V102JV
R7541
EXB38V102JV
AA_ODE_L
AA_CLR_L
D7503
B0HCMM000014
D7504
B0HCMM000014
R7525
2.2
R7527
2.2
L7505
J0JJC0000011
L7506
J0JJC0000011
AB_ODE_L
AB_CLR_L
C7511
16V
1u
5V
R7547
100
C7540
50V
100p
CLKL2
PCL_N
LE6
R7546
100
C7522
50V
100p
CLKL1
VDA_75V
D7505
B0HCMM000014
D7506
B0HCMM000014
C7564
100V
0.47u
78V_R
R7511
0
L7507
J0JJC0000011
L7508
J0JJC0000011
R7530
2.2
R7532
2.2
R7528
100
LE7
R7533
100
AB_DDA9
AB_DDB9
AB_DDC9
AB_DDA8
AB_DDB8
AB_DDC8
1
2
3
4
5
6
7
8
9

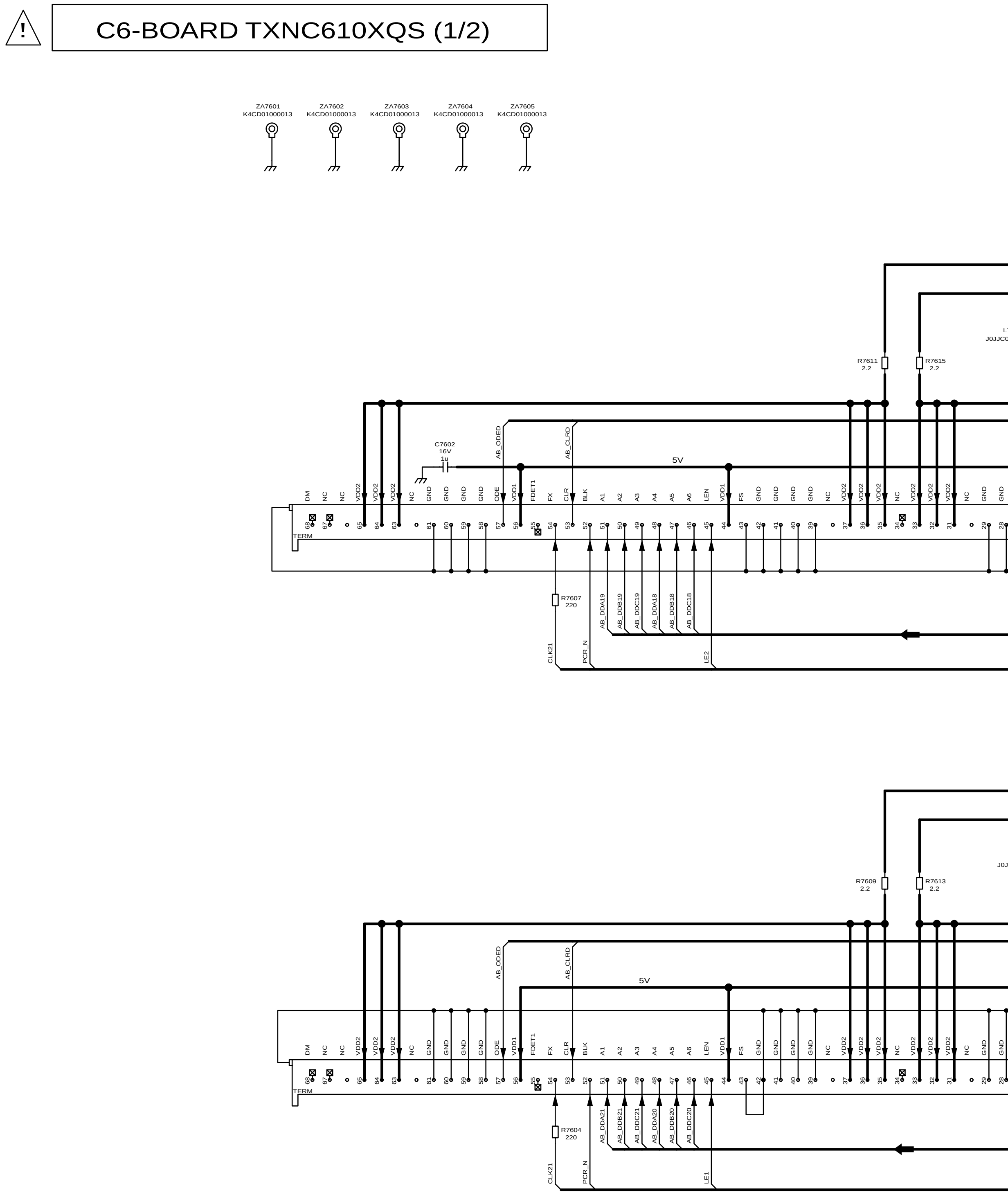
TH-50PHD8BK/BS/EK/ES
C5-Board (2 of 2) Schematic Diagram


C55
TO D-BOARD (D33)
TO C4-BOARD (C41)
C51
IC7505
C0JBAZ001120
BUFFER
R7540
R7541 EXB38V102JV
C5_5_3V
C7530 16V 0.1u
R7562 EXB38V470JV
R7563 EXB38V470JV
VDA_75V
D7503 B0HCMM000014
D7504 B0HCMM000014
C7563 100V 0.47u
78V_R
R7509 0
L7505
L7506 J0JJC0000011
CB6
TO PANEL DATA DRIVER
R7546 100
C7522 50V 100p
C5_5V
C7521 16V 1u
CB7
TO PANEL DATA DRIVER
R7533 100
C7520 50V 100p
TO C4-BOARD (C43)
78V_L
D7509 B0HDSM000005
C53
C5_5_3V
C5_5_3V_B
R7506 0
R7504 0
78V_L
78V_R
NC
Vda 75V
NC
GND
GND
UEH
USL
USH
UML
UMH
NUEL
DRV_SOS9
DRV_SOS2
DMHR
DMLL
DMHL
DSLL
DSHL
DRV_RST
5V_DET
CLK[0](+)
CLK[1](-)
LED
PCD1
CLRD
ODED
DOUTDA[1]
DOUTDB[1]
DOUTDC[1]
DOUTDA[0]
DOUTDB[0]
DOUTDC[0]
P5V

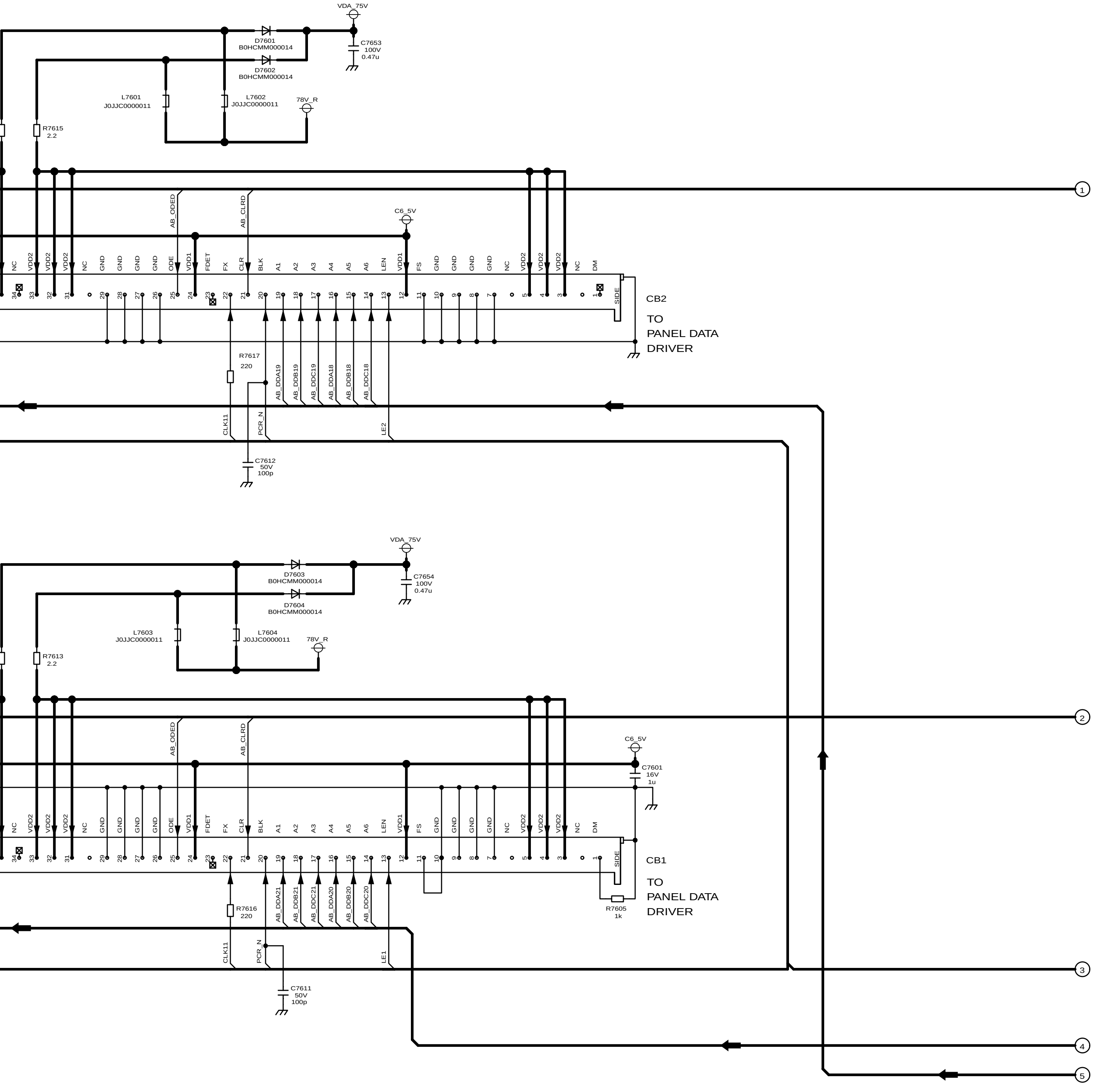
TH-50PHD8BK/BS/EK/ES
C5-Board (2 of 2) Schematic Diagram

14 15 16 17 18

15.43. C6-Board (1 of 2) Schematic Diagram


C6-BOARD TXNC610XQS (1/2)
ZA7601
K4CD01000013
ZA7602
K4CD01000013
ZA7603
K4CD01000013
ZA7604
K4CD01000013
ZA7605
K4CD01000013
R7611
2.2
R7615
2.2
C7602
16V
1u
AB_ODED
AB_CLRD
5V
DM
NC
NC
VDD2
VDD2
VDD2
NC
GND
GND
GND
GND
ODE
VDD1
FDET1
FX
CLR
BLK
A1
A2
A3
A4
A5
A6
LEN
VDD1
FS
GND
GND
GND
GND
NC
VDD2
VDD2
VDD2
NC
VDD2
VDD2
VDD2
NC
GND
GND
TERM
R7607
220
AB_DDA19
AB_DDB19
AB_DDC19
AB_DDA18
AB_DDB18
AB_DDC18
CLK21
PCR_N
LE2
R7609
2.2
R7613
2.2
R7604
220
AB_DDA21
AB_DDB21
AB_DDC21
AB_DDA20
AB_DDB20
AB_DDC20
LE1
A
B
C
D
E
1
2
3
4

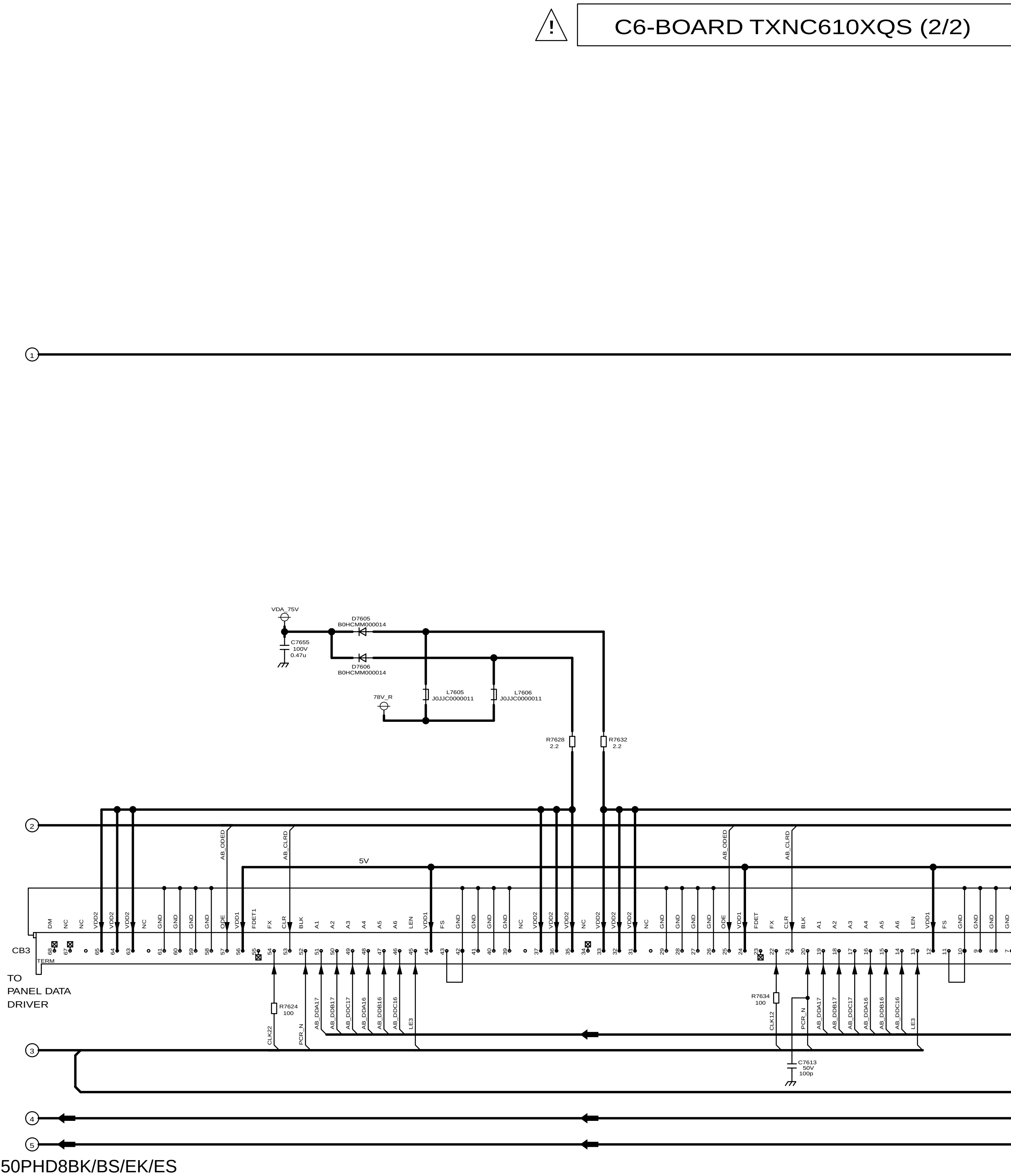
TH-50PHD8BK/BS/EK/ES
C6-Board (1 of 2) Schematic Diagram


VDA_75V
D7601
B0HCMM000014
D7602
B0HCMM000014
C7653
100V
0.47u
L7601
J0JJC0000011
L7602
J0JJC0000011
78V_R
R7615
2.2
AB_ODED
AB_CLRD
C6_5V
NC
VDD2
VDD2
VDD2
NC
GND
GND
GND
GND
ODE
VDD1
FDET
FX
CLR
BLK
A1
A2
A3
A4
A5
A6
LEN
VDD1
FS
GND
GND
GND
GND
NC
VDD2
VDD2
VDD2
NC
DM
SIDE
CB2
TO
PANEL DATA
DRIVER
R7617
220
AB_DDA19
AB_DDB19
AB_DDC19
AB_DDA18
AB_DDB18
AB_DDC18
CLK11
PCR_N
LE2
C7612
50V
100p
1
VDA_75V
D7603
B0HCMM000014
D7604
B0HCMM000014
C7654
100V
0.47u
L7603
J0JJC0000011
L7604
J0JJC0000011
78V_R
R7613
2.2
2
C6_5V
C7601
16V
1u
CB1
TO
PANEL DATA
DRIVER
R7616
220
AB_DDA21
AB_DDB21
AB_DDC21
AB_DDA20
AB_DDB20
AB_DDC20
R7605
1k
CLK11
PCR_N
LE1
C7611
50V
100p
3
4
5

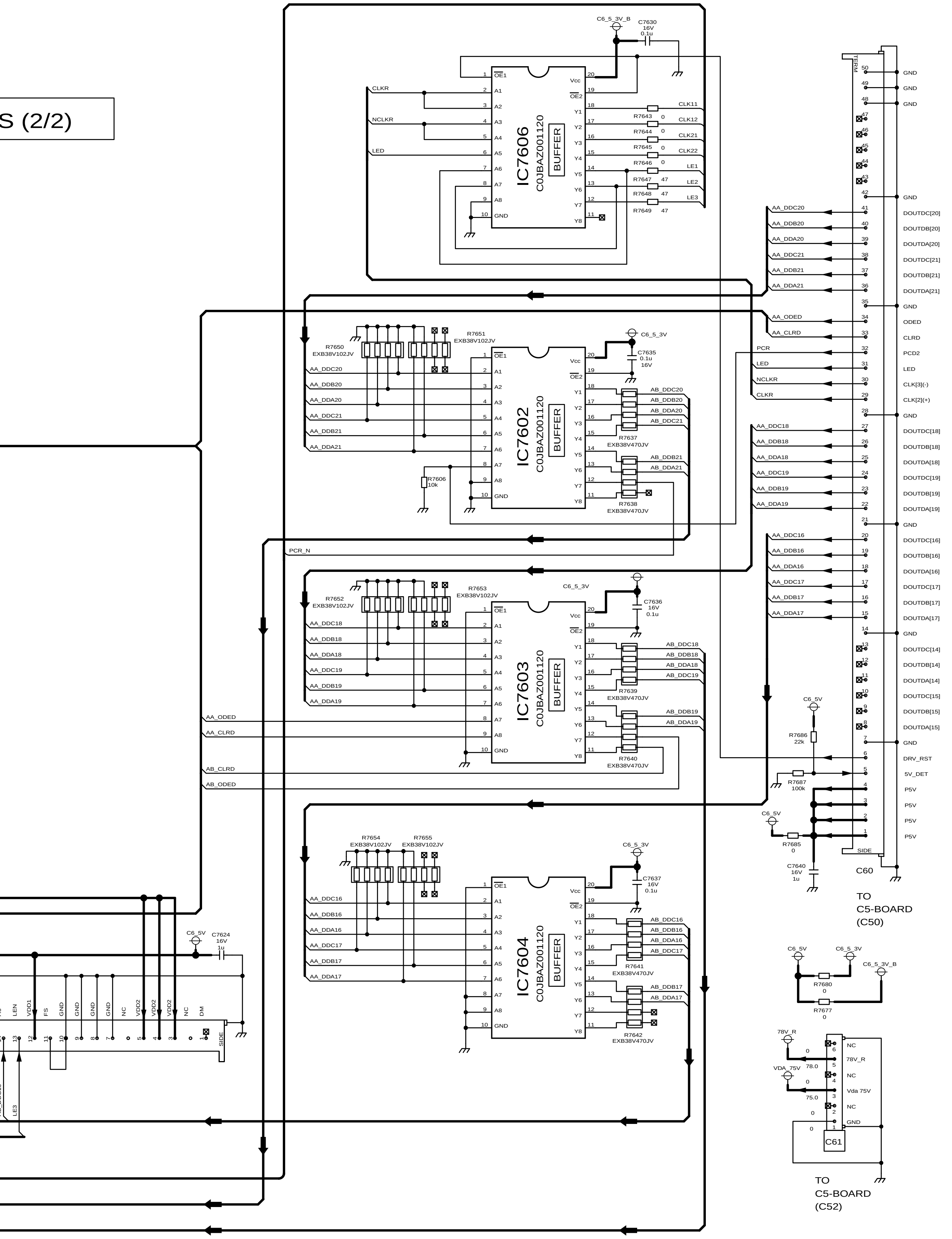
TH-50PHD8BK/BS/EK/ES
C6-Board (1 of 2) Schematic Diagram

4 5 6 7 8

15.44. C6-Board (2 of 2) Schematic Diagram


C6-BOARD TXNC610XQS (2/2)
VDA_75V
D7605
B0HCMM000014
C7655
100V
0.47u
D7606
B0HCMM000014
L7605
J0JJC0000011
L7606
J0JJC0000011
78V_R
R7628
2.2
R7632
2.2
AB_ODED
AB_CLRD
5V
DM
NC
NC
VDD2
VDD2
VDD2
NC
GND
GND
GND
GND
ODE
VDD1
FDET1
FX
CLR
BLK
A1
A2
A3
A4
A5
A6
LEN
VDD1
FS
GND
GND
GND
NC
VDD2
VDD2
VDD2
NC
VDD2
VDD2
VDD2
NC
GND
GND
GND
GND
ODE
VDD1
FDET
FX
CLR
BLK
A1
A2
A3
A4
A5
A6
LEN
VDD1
FS
GND
GND
GND
GND
CB3
TERM
TO
PANEL DATA
DRIVER
R7624
100
CLK22
PCR_N
AB_DDA17
AB_DDB17
AB_DDC17
AB_DDA16
AB_DDB16
AB_DDC16
LE3
R7634
100
CLK12
PCR_N
AB_DDA17
AB_DDB17
AB_DDC17
AB_DDA16
AB_DDB16
AB_DDC16
LE3
C7613
50V
100p
1
2
3
4
5

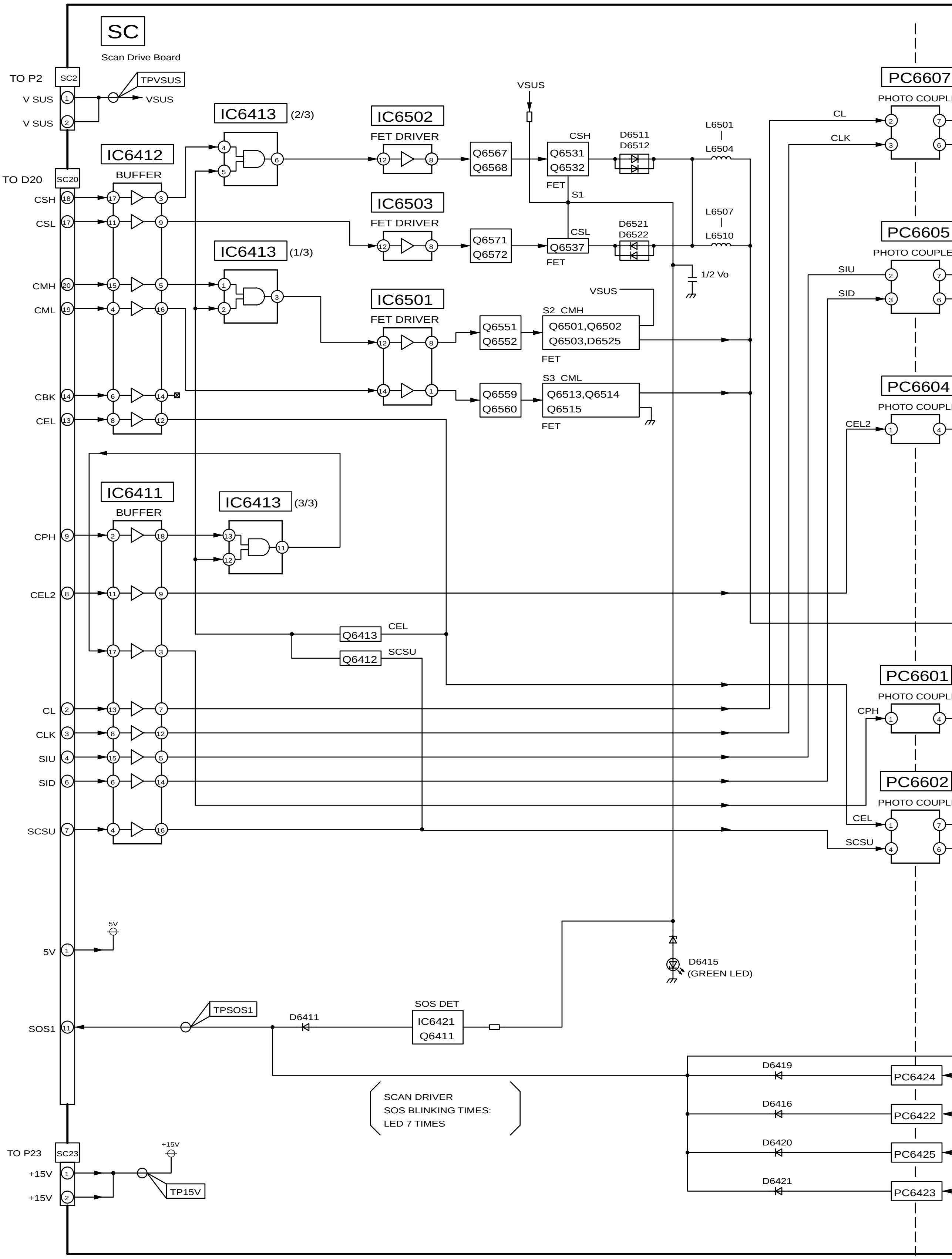
S (2/2)

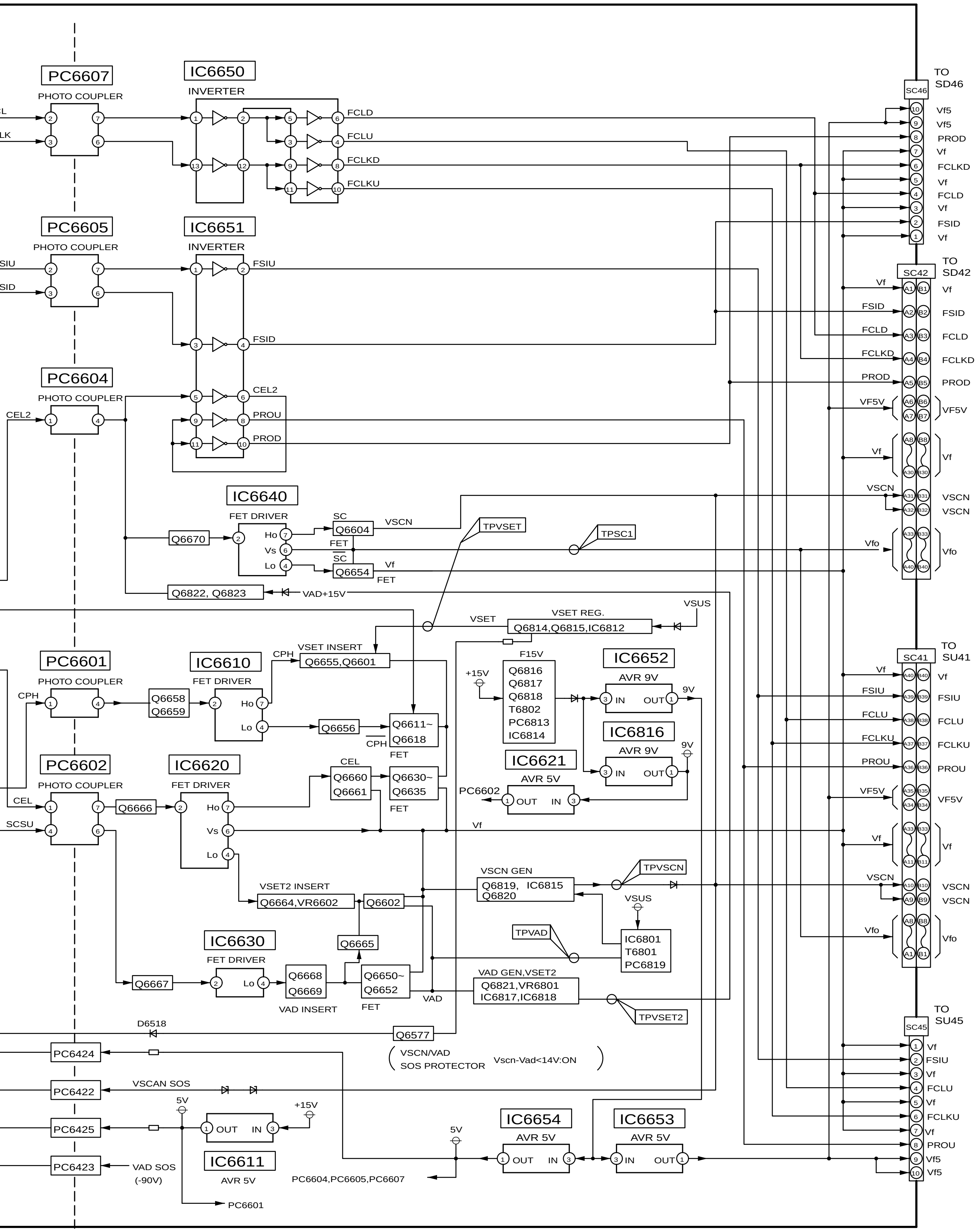

C6_5_3V_B
C7630 16V 0.1u
IC7606
C0JBAZ001120
BUFFER
OE1
A1
A2
A3
A4
A5
A6
A7
A8
GND
Vcc
OE2
Y1
Y2
Y3
Y4
Y5
Y6
Y7
Y8
CLKR
NCLKR
LED
R7643 0
R7644 0
R7645 0
R7646 0
R7647 47
R7648 47
R7649 47
CLK11
CLK12
CLK21
CLK22
LE1
LE2
LE3
IC7602
R7650 EXB38V102JV
R7651 EXB38V102JV
C6_5_3V
C7635 0.1u 16V
AA_DDC20
AA_DDB20
AA_DDA20
AA_DDC21
AA_DDB21
AA_DDA21
AB_DDC20
AB_DDB20
AB_DDA20
AB_DDC21
AB_DDB21
AB_DDA21
R7637 EXB38V470JV
R7638 EXB38V470JV
R7606 10k
PCR_N
IC7603
R7652 EXB38V102JV
R7653 EXB38V102JV
C7636 16V 0.1u
AA_DDC18
AA_DDB18
AA_DDA18
AA_DDC19
AA_DDB19
AA_DDA19
AB_DDC18
AB_DDB18
AB_DDA18
AB_DDC19
AB_DDB19
AB_DDA19
R7639 EXB38V470JV
R7640 EXB38V470JV
AA_ODED
AA_CLRD
AB_CLRD
AB_ODED
IC7604
R7654 EXB38V102JV
R7655 EXB38V102JV
C7637 16V 0.1u
AA_DDC16
AA_DDB16
AA_DDA16
AA_DDC17
AA_DDB17
AA_DDA17
AB_DDC16
AB_DDB16
AB_DDA16
AB_DDC17
AB_DDB17
AB_DDA17
R7641 EXB38V470JV
R7642 EXB38V470JV
C6_5V
C7624 16V 1u
LEN
VDD1
FS
GND
NC
VDD2
DM
SIDE
LE3
TERM
PCR
NCLKR
CLKR
AA_ODED
AA_CLRD
GND
DOUTDC[20]
DOUTDB[20]
DOUTDA[20]
DOUTDC[21]
DOUTDB[21]
DOUTDA[21]
ODED
CLRD
PCD2
LED
CLK[3](-)
CLK[2](+)
DOUTDC[18]
DOUTDB[18]
DOUTDA[18]
DOUTDC[19]
DOUTDB[19]
DOUTDA[19]
DOUTDC[16]
DOUTDB[16]
DOUTDA[16]
DOUTDC[17]
DOUTDB[17]
DOUTDA[17]
DOUTDC[14]
DOUTDB[14]
DOUTDA[14]
DOUTDC[15]
DOUTDB[15]
DOUTDA[15]
DRV_RST
5V_DET
P5V
R7686 22k
R7687 100k
R7685 0
C7640 16V 1u
C60
TO
C5-BOARD
(C50)
R7680 0
R7677 0
78V_R
VDA_75V
78.0
75.0
NC
78V_R
Vda 75V
GND
C61
TO
C5-BOARD
(C52)

TH-50PHD8BK/BS/EK/ES
C6-Board (2 of 2) Schematic Diagram

12 13 14 15

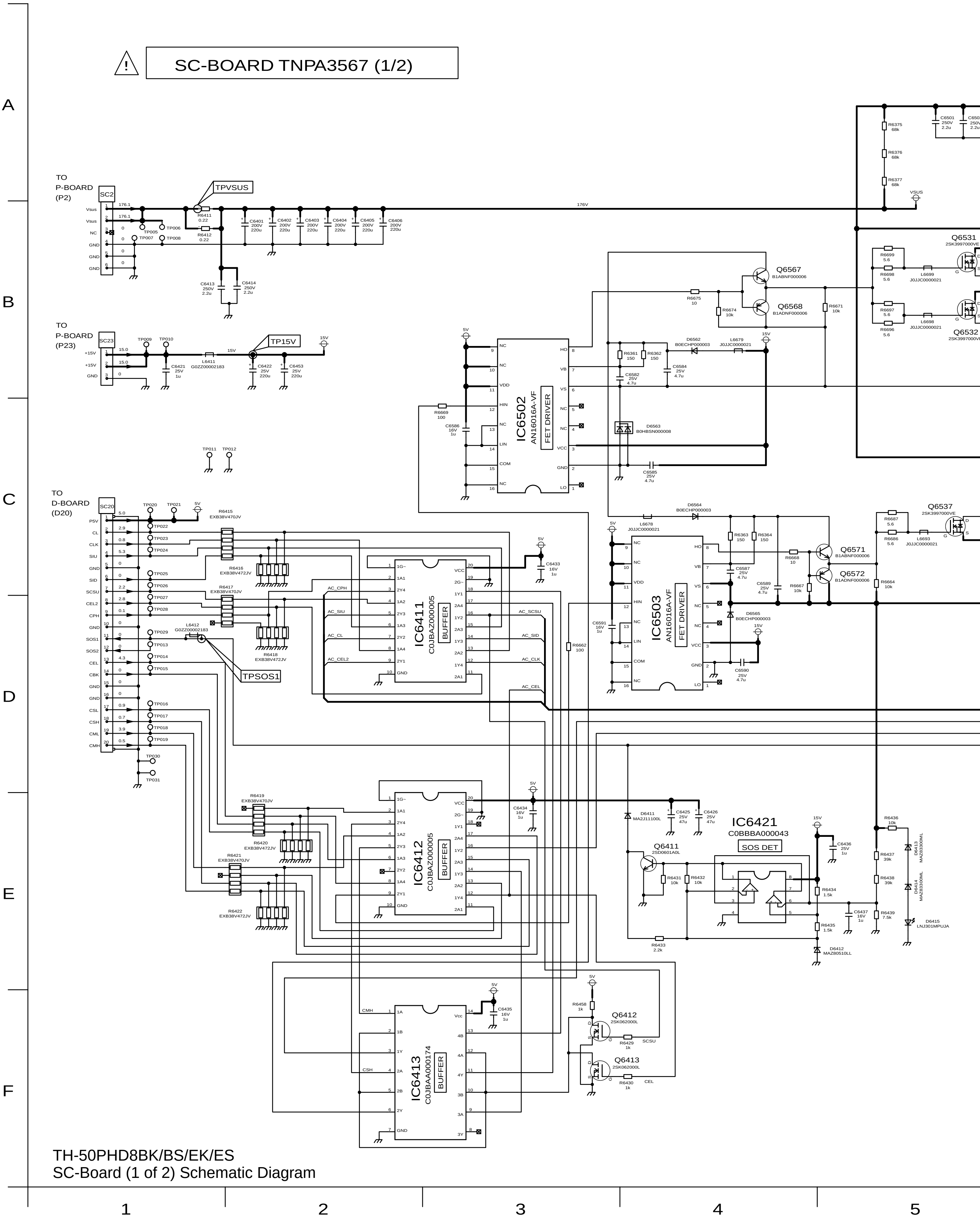
15.45. SC-Board Block Diagram


SC
Scan Drive Board
TO P2
SC2
V SUS
V SUS
TPVSUS
VSUS
TO D20
SC20
CSH
CSL
CMH
CML
CBK
CEL
CPH
CEL2
CL
CLK
SIU
SID
SCSU
5V
SOS1
TO P23
SC23
+15V
+15V
TP15V
+15V
5V
IC6412
BUFFER
IC6411
BUFFER
IC6413 (2/3)
IC6413 (1/3)
IC6413 (3/3)
IC6502
FET DRIVER
IC6503
FET DRIVER
IC6501
FET DRIVER
Q6567
Q6568
Q6571
Q6572
Q6551
Q6552
Q6559
Q6560
VSUS
CSH
Q6531
Q6532
FET
S1
CSL
Q6537
FET
D6511
D6512
D6521
D6522
L6501
L6504
L6507
L6510
1/2 Vo
VSUS
S2 CMH
Q6501,Q6502
Q6503,D6525
FET
S3 CML
Q6513,Q6514
Q6515
FET
CEL
Q6413
Q6412
SCSU
D6415
(GREEN LED)
TPSOS1
D6411
SOS DET
IC6421
Q6411
SCAN DRIVER
SOS BLINKING TIMES:
LED 7 TIMES
D6419
D6416
D6420
D6421
PC6424
PC6422
PC6425
PC6423
PC6607
PHOTO COUPL
CL
CLK
PC6605
PHOTO COUPLE
SIU
SID
PC6604
PHOTO COUPL
CEL2
PC6601
PHOTO COUPL
CPH
PC6602
PHOTO COUPL
CEL
SCSU

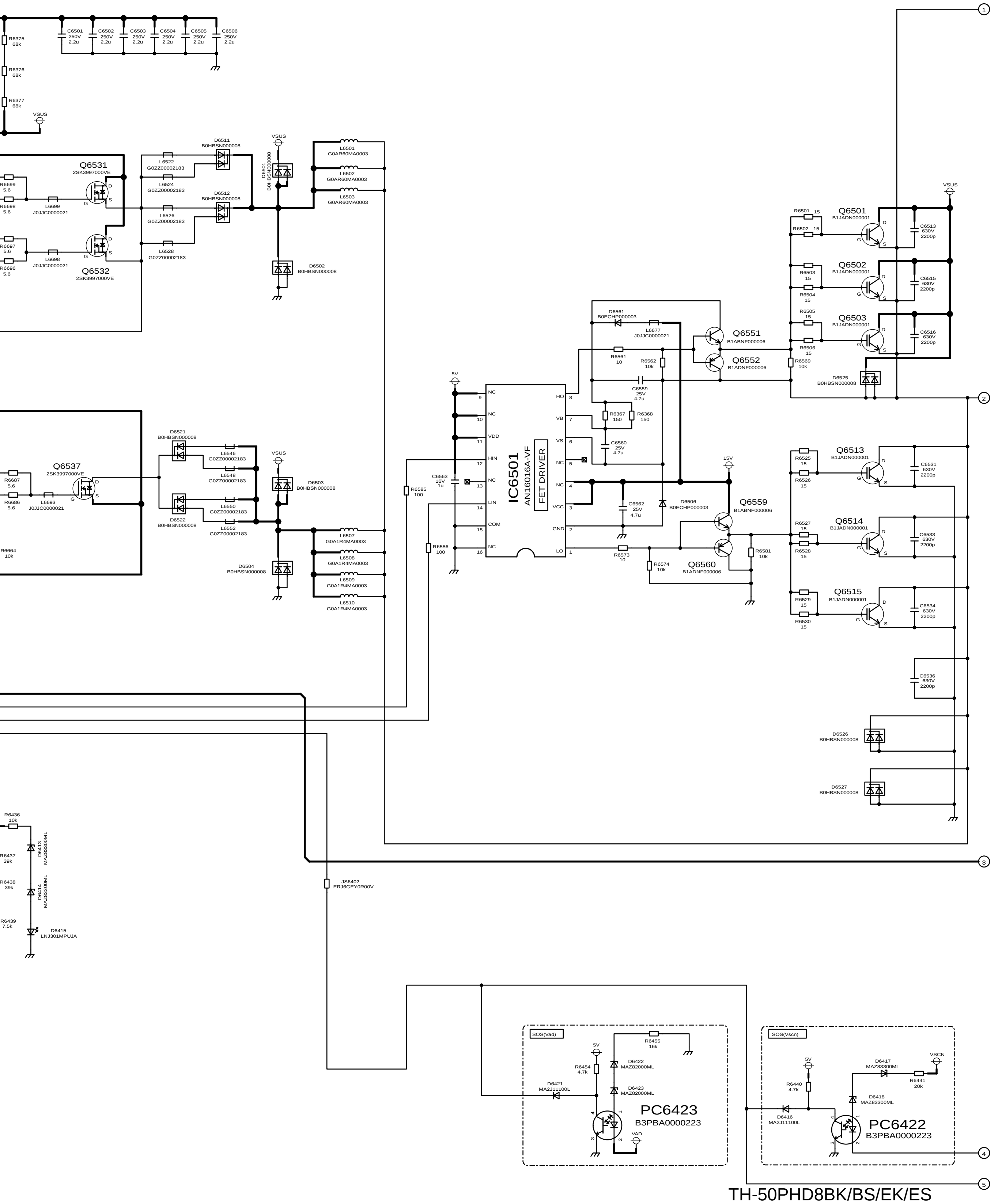

PC6607
PHOTO COUPLER
IC6650
INVERTER
FCLD
FCLU
FCLKD
FCLKU
PC6605
PHOTO COUPLER
IC6651
INVERTER
FSIU
FSID
PC6604
PHOTO COUPLER
CEL2
PROU
PROD
IC6640
FET DRIVER
Q6670
Ho
Vs
Lo
SC
Q6604
VSCN
FET
Q6654
Vf
TPVSET
TPSC1
Q6822, Q6823
VAD+15V
VSUS
VSET REG.
VSET
Q6814,Q6815,IC6812
PC6601
PHOTO COUPLER
CPH
Q6658
Q6659
IC6610
FET DRIVER
VSET INSERT
Q6655,Q6601
Q6656
Q6611~
Q6618
FET
F15V
+15V
Q6816
Q6817
Q6818
T6802
PC6813
IC6814
IC6652
AVR 9V
IN
OUT
9V
IC6816
AVR 9V
IC6621
AVR 5V
PC6602
PC6602
PHOTO COUPLER
CEL
SCSU
Q6666
IC6620
FET DRIVER
Q6660
Q6661
Q6630~
Q6635
VSCN GEN
Q6819, IC6815
Q6820
TPVSCN
VSET2 INSERT
Q6664,VR6602
Q6602
Q6665
TPVAD
IC6801
T6801
PC6819
IC6630
FET DRIVER
Q6667
Q6668
Q6669
VAD INSERT
Q6650~
Q6652
VAD
VAD GEN,VSET2
Q6821,VR6801
IC6817,IC6818
TPVSET2
D6518
Q6577
VSCN/VAD
SOS PROTECTOR
Vscn-Vad<14V:ON
PC6424
PC6422
VSCAN SOS
PC6425
5V
+15V
PC6423
VAD SOS
(-90V)
IC6611
AVR 5V
PC6601
PC6604,PC6605,PC6607
IC6654
AVR 5V
IC6653
AVR 5V
TO
SD46
SC46
Vf5
Vf5
PROD
Vf
FCLKD
Vf
FCLD
Vf
FSID
Vf
TO
SD42
SC42
Vf
FSID
FCLD
FCLKD
PROD
VF5V
Vf
VSCN
VSCN
Vfo
TO
SU41
SC41
Vf
FSIU
FCLU
FCLKU
PROU
VF5V
Vf
VSCN
VSCN
Vfo
TO
SU45
SC45
Vf
FSIU
Vf
FCLU
Vf
FCLKU
Vf
PROU
Vf5
Vf5

TH-50PHD8BK/BS/EK/ES
SC-Board Block Diagram

15.46. SC-Board (1 of 2) Schematic Diagram


SC-BOARD TNPA3567 (1/2)
A
B
C
D
E
F
1
2
3
4
5
TO P-BOARD (P2)
SC2
TPVSUS
176V
TO P-BOARD (P23)
SC23
TP15V
15V
TO D-BOARD (D20)
SC20
TPSOS1
IC6411
C0JBAZ000005
BUFFER
IC6412
C0JBAZ000005
BUFFER
IC6413
C0JBAA000174
BUFFER
IC6502
AN16016A-VF
FET DRIVER
IC6503
AN16016A-VF
FET DRIVER
IC6421
C0BBBA000043
SOS DET
Q6411
Q6412
Q6413
Q6531
Q6532
Q6537
Q6567
Q6568
Q6571
Q6572
AC_CPH
AC_SIU
AC_CL
AC_CEL2
AC_SCSU
AC_SID
AC_CLK
AC_CEL
VSUS
5V
SCSU
CEL

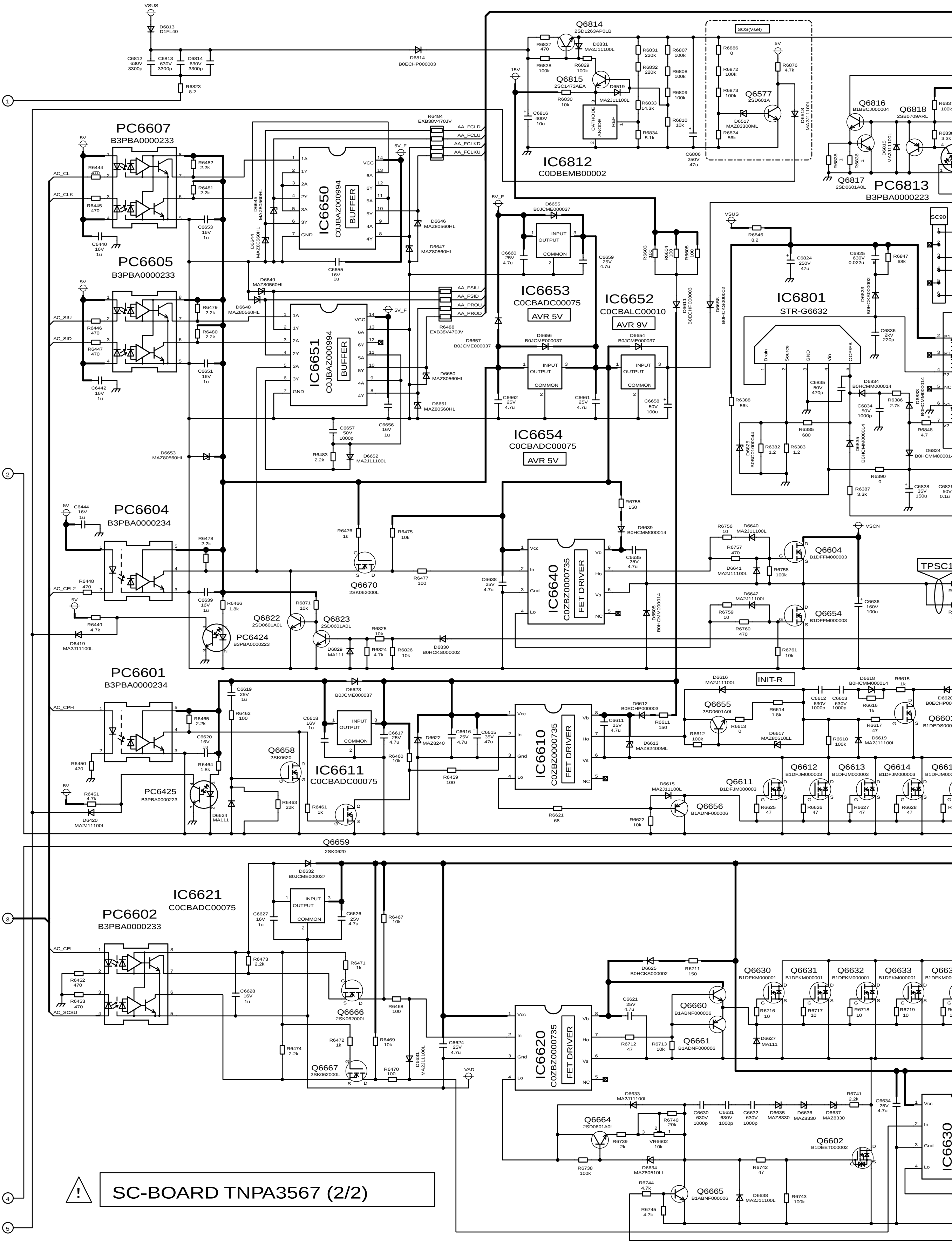
TH-50PHD8BK/BS/EK/ES
SC-Board (1 of 2) Schematic Diagram


R6375 68k
R6376 68k
R6377 68k
VSUS
C6501 250V 2.2u
C6502 250V 2.2u
C6503 250V 2.2u
C6504 250V 2.2u
C6505 250V 2.2u
C6506 250V 2.2u
Q6531 2SK3997000VE
Q6532 2SK3997000VE
R6699 5.6
R6698 5.6
R6697 5.6
R6696 5.6
L6699 J0JJC0000021
L6698 J0JJC0000021
L6522 G0ZZ00002183
L6524 G0ZZ00002183
L6526 G0ZZ00002183
L6528 G0ZZ00002183
D6511 B0HBSN000008
D6512 B0HBSN000008
D6501 B0HBSN000008
D6502 B0HBSN000008
L6501 G0AR60MA0003
L6502 G0AR60MA0003
L6503 G0AR60MA0003
Q6537 2SK3997000VE
R6687 5.6
R6686 5.6
L6693 J0JJC0000021
R6664 10k
D6521 B0HBSN000008
D6522 B0HBSN000008
L6546 G0ZZ00002183
L6548 G0ZZ00002183
L6550 G0ZZ00002183
L6552 G0ZZ00002183
D6503 B0HBSN000008
D6504 B0HBSN000008
L6507 G0A1R4MA0003
L6508 G0A1R4MA0003
L6509 G0A1R4MA0003
L6510 G0A1R4MA0003
5V
C6563 16V 1u
R6585 100
R6586 100
IC6501
AN16016A-VF
FET DRIVER
NC 9
NC 10
VDD 11
HIN 12
NC 13
LIN 14
COM 15
NC 16
HO 8
VB 7
VS 6
NC 5
NC 4
VCC 3
GND 2
LO 1
D6561 B0ECHP000003
L6677 J0JJC0000021
R6561 10
R6562 10k
C6559 25V 4.7u
R6367 150
R6368 150
C6560 25V 4.7u
Q6551 B1ABNF000006
Q6552 B1ADNF000006
15V
C6562 25V 4.7u
D6506 B0ECHP000003
Q6559 B1ABNF000006
Q6560 B1ADNF000006
R6573 10
R6574 10k
R6581 10k
VSUS
R6501 15
R6502 15
Q6501 B1JADN000001
C6513 630V 2200p
R6503 15
R6504 15
Q6502 B1JADN000001
C6515 630V 2200p
R6505 15
R6506 15
Q6503 B1JADN000001
C6516 630V 2200p
R6569 10k
D6525 B0HBSN000008
R6525 15
R6526 15
Q6513 B1JADN000001
C6531 630V 2200p
R6527 15
R6528 15
Q6514 B1JADN000001
C6533 630V 2200p
R6529 15
R6530 15
Q6515 B1JADN000001
C6534 630V 2200p
C6536 630V 2200p
D6526 B0HBSN000008
D6527 B0HBSN000008
D S G
①
②
③
④
⑤
R6436 10k
R6437 39k
R6438 39k
R6439 7.5k
D6413 MAZ83300ML
D6414 MAZ83300ML
D6415 LNJ301MPUJA
JS6402 ERJ6GEY0R00V
SOS(Vad)
5V
R6454 4.7k
R6455 16k
D6421 MA2J11100L
D6422 MAZ82000ML
D6423 MAZ82000ML
PC6423
B3PBA0000223
VAD
SOS(Vscn)
5V
R6440 4.7k
D6416 MA2J11100L
D6417 MAZ83300ML
VSCN
R6441 20k
D6418 MAZ83300ML
PC6422
B3PBA0000223

TH-50PHD8BK/BS/EK/ES
SC-Board (1 of 2) Schematic Diagram

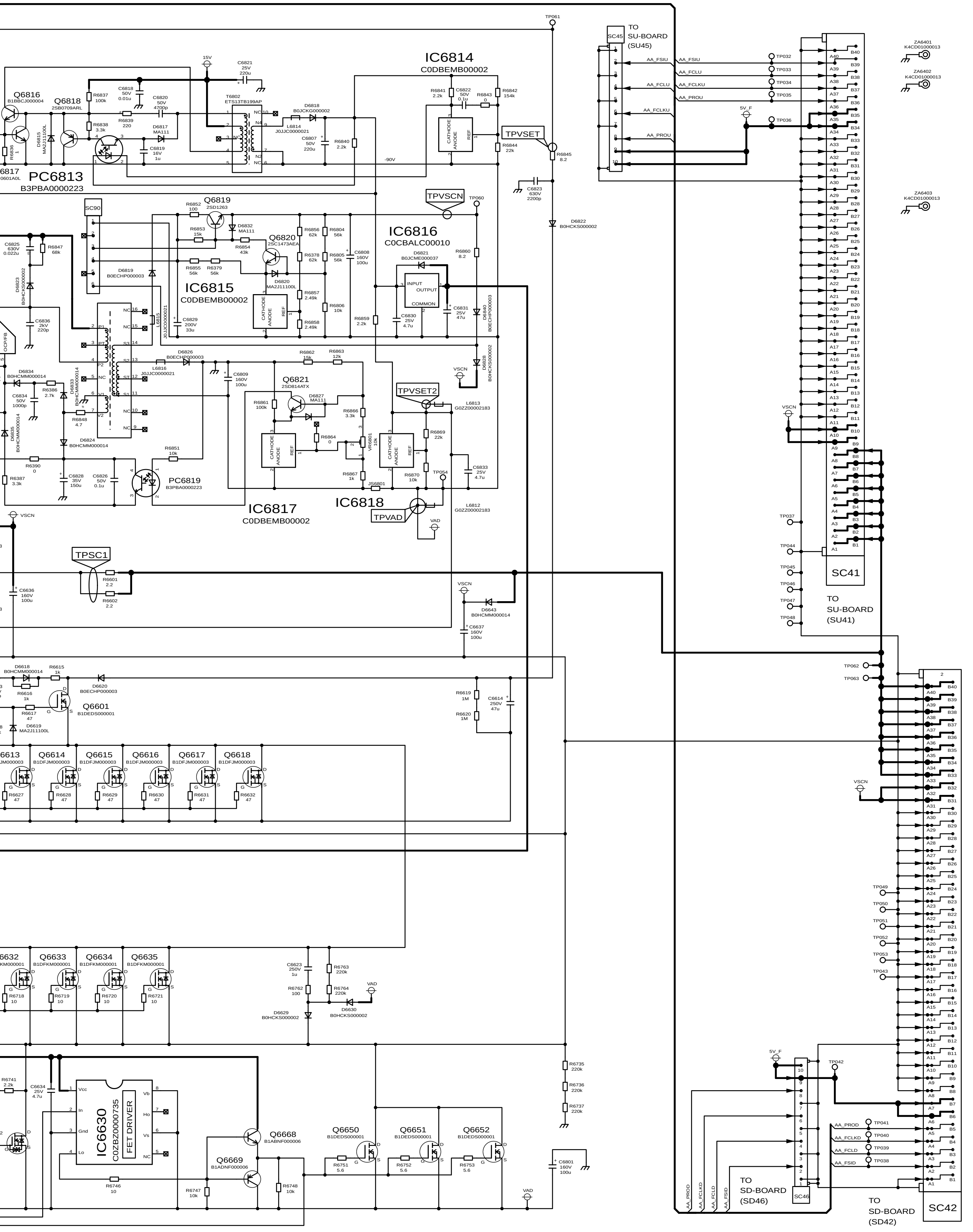
5	6	7	8	9

15.47. SC-Board (2 of 2) Schematic Diagram


VSUS
D6813 D1FL40
C6812 630V 3300p
C6813 630V 3300p
C6814 630V 3300p
R6823 8.2
D6814 B0ECHP000003
PC6607 B3PBA0000233
PC6605 B3PBA0000233
PC6604 B3PBA0000234
PC6601 B3PBA0000234
PC6602 B3PBA0000233
PC6424 B3PBA0000223
PC6425 B3PBA0000223
AC_CL
AC_CLK
AC_SIU
AC_SID
AC_CEL2
AC_CPH
AC_CEL
AC_SCSU
IC6650 C0JBAZ000994 BUFFER
IC6651 C0JBAZ000994 BUFFER
R6484 EXB38V470JV
R6488 EXB38V470JV
AA_FCLD
AA_FCLU
AA_FCLKD
AA_FCLKU
AA_FSIU
AA_FSID
AA_PROU
AA_PROD
5V_F
Q6814 2SD1263AP0LB
Q6815 2SC1473AEA
IC6812 C0DBEMB00002
CATHODE
ANODE
REF
SOS(Vset)
Q6577 2SD601A
Q6816 B1BBCJ000004
Q6818 2SB0709ARL
Q6817 2SD0601A0L
PC6813 B3PBA0000223
IC6653 C0CBADC00075 AVR 5V
IC6652 C0CBALC00010 AVR 9V
IC6654 C0CBADC00075 AVR 5V
IC6801 STR-G6632
Drain
Source
GND
Vin
OCP/FB
VSUS
VSCN
IC6640 C0ZBZ0000735 FET DRIVER
Q6670 2SK0620L
Q6822 2SD0601A0L
Q6823 2SD0601A0L
Q6604 B1DFFM000003
Q6654 B1DFFM000003
TPSC1
INIT-R
Q6655 2SD0601A0L
IC6611 C0CBADC00075
Q6658 2SK0620
Q6659 2SK0620
IC6610 C0ZBZ0000735 FET DRIVER
Q6611 B1DFJM000003
Q6612 B1DFJM000003
Q6613 B1DFJM000003
Q6614 B1DFJM000003
Q6656 B1ADNF000006
IC6621 C0CBADC00075
Q6666 2SK062000L
Q6667 2SK062000L
IC6620 C0ZBZ0000735 FET DRIVER
Q6660 B1ABNF000006
Q6661 B1ADNF000006
Q6630 B1DFKM000001
Q6631 B1DFKM000001
Q6632 B1DFKM000001
Q6633 B1DFKM000001
Q6664 2SD0601A0L
Q6665 B1ABNF000006
Q6602 B1DEET000002
IC6630
VAD
SC-BOARD TNPA3567 (2/2)
1
2
3
4
5

TH-50PHD8BK/BS/EK/ES SC-Board (2 of 2) Schematic Diagram

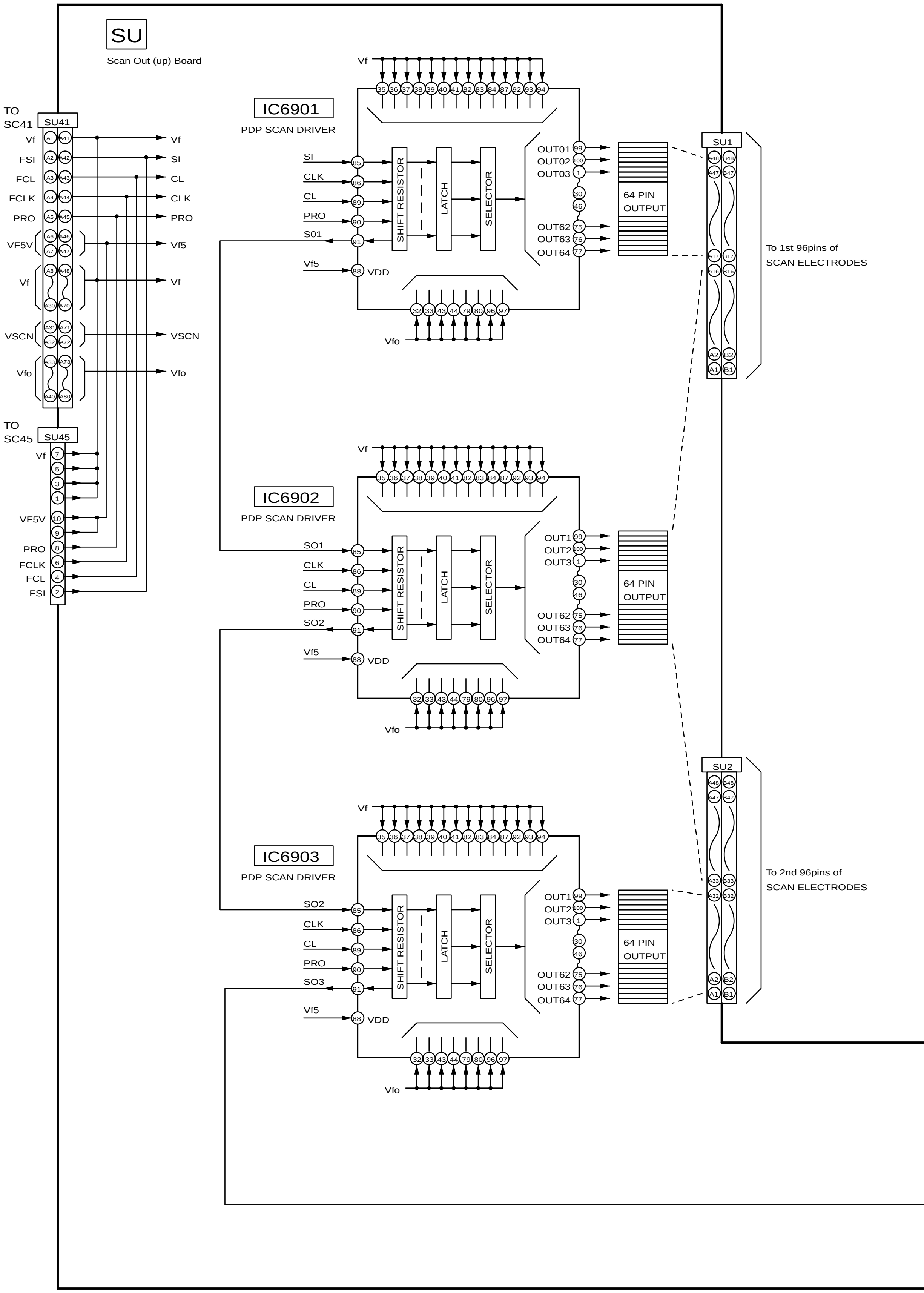
10 11 12 13 14

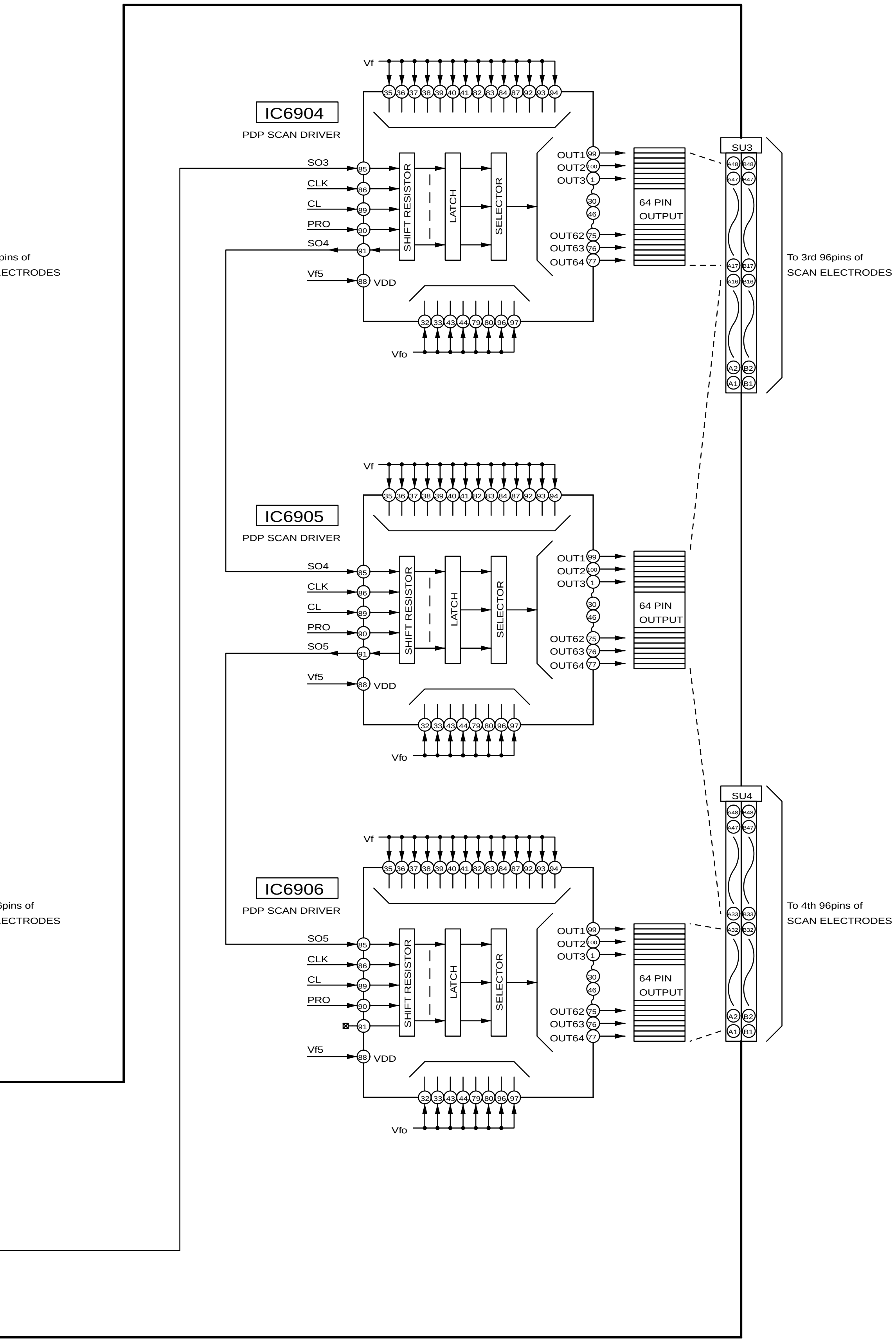

IC6814
C0DBEMB00002
IC6815
C0DBEMB00002
IC6816
C0CBALC00010
IC6817
C0DBEMB00002
IC6818
IC6630
C0ZBZ0000735
FET DRIVER
PC6813
B3PBA0000223
PC6819
B3PBA0000223
Q6816
B1BBCJ000004
Q6818
2SB0709ARL
Q6819
2SD1263
Q6820
2SC1473AEA
Q6821
2SD814ATX
Q6601
B1DEDS000001
Q6614
Q6615
Q6616
Q6617
Q6618
B1DFJM000003
Q6633
Q6634
Q6635
B1DFKM000001
Q6668
B1ABNF000006
Q6669
B1ADNF000006
Q6650
Q6651
Q6652
B1DEDS000001
T6802
ETS13TB199AP
TPVSET
TPVSCN
TPVSET2
TPVAD
TPSC1
SC90
VSCN
VAD
15V
-90V
5V_F
TO
SU-BOARD
(SU45)
SC45
AA_FSIU
AA_FCLU
AA_FCLKU
AA_PROU
SC41
TO
SU-BOARD
(SU41)
SC42
TO
SD-BOARD
(SD42)
SC46
TO
SD-BOARD
(SD46)
AA_PROD
AA_FCLKD
AA_FCLD
AA_FSID
ZA6401
K4CD01000013
ZA6402
K4CD01000013
ZA6403
K4CD01000013

TH-50PHD8BK/BS/EK/ES SC-Board (2 of 2) Schematic Diagram

14 15 16 17 18

15.48. SU-Board Block Diagram

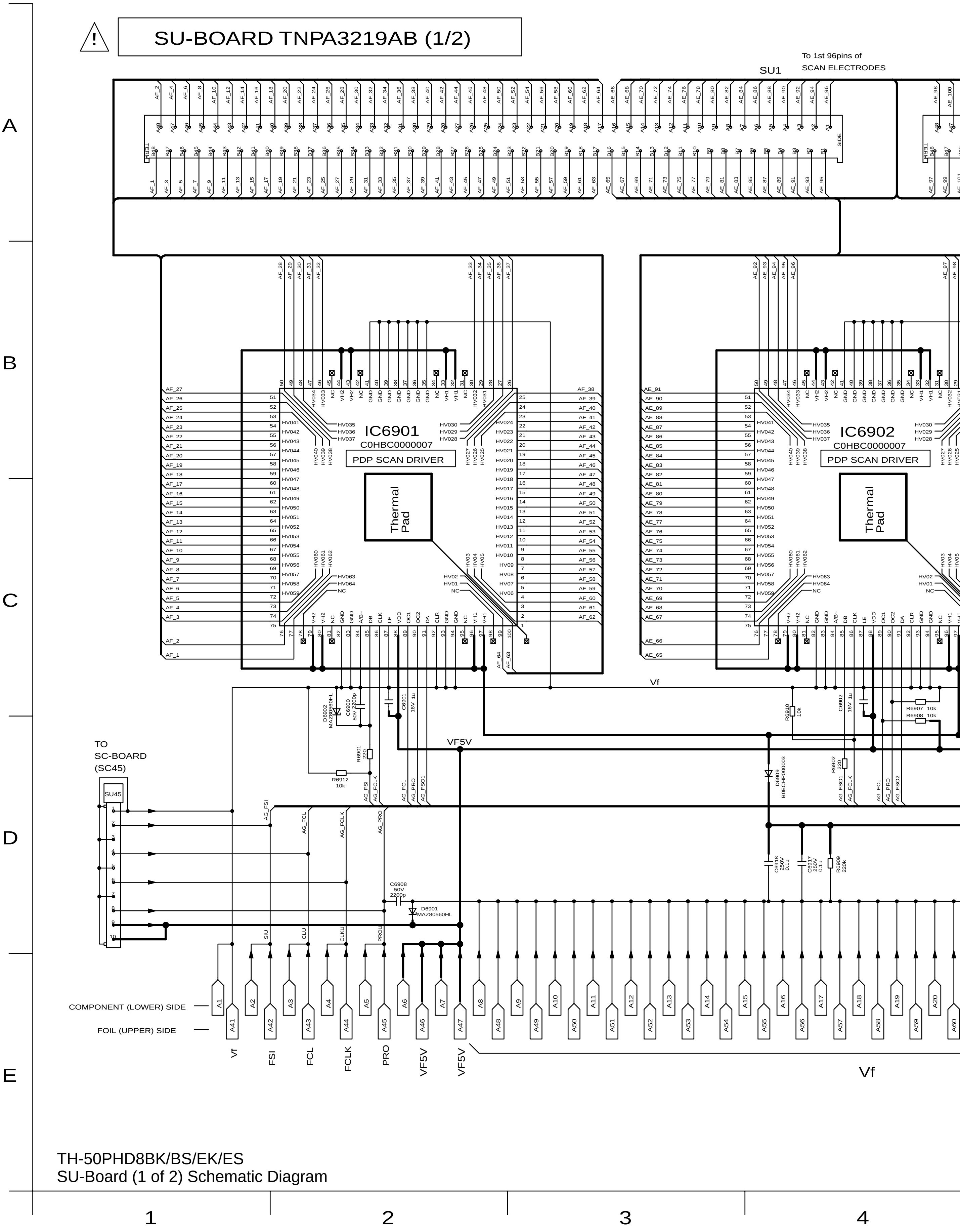

SU
Scan Out (up) Board
TO SC41
SU41
Vf
FSI
FCL
FCLK
PRO
VF5V
Vf
VSCN
Vfo
SI
CL
CLK
PRO
Vf5
Vf
VSCN
Vfo
TO SC45
SU45
Vf
VF5V
PRO
FCLK
FCL
FSI
IC6901
PDP SCAN DRIVER
IC6902
PDP SCAN DRIVER
IC6903
PDP SCAN DRIVER
SI
CLK
CL
PRO
S01
SO1
SO2
SO3
Vf5
VDD
Vf
Vfo
SHIFT RESISTOR
LATCH
SELECTOR
OUT01
OUT02
OUT03
OUT62
OUT63
OUT64
OUT1
OUT2
OUT3
64 PIN OUTPUT
SU1
SU2
To 1st 96pins of SCAN ELECTRODES
To 2nd 96pins of SCAN ELECTRODES



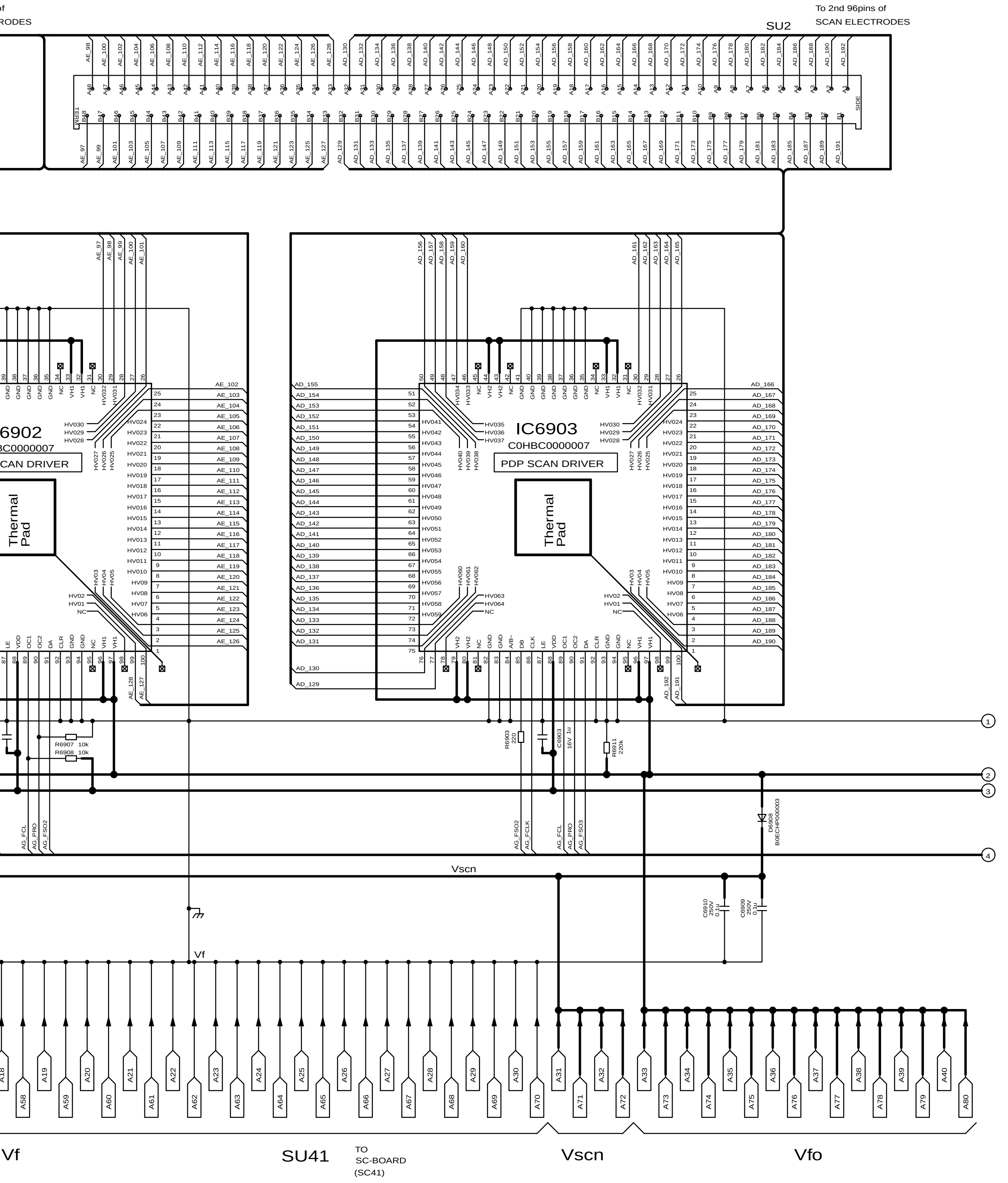
IC6904
PDP SCAN DRIVER
IC6905
PDP SCAN DRIVER
IC6906
PDP SCAN DRIVER
Vf
Vfo
Vf5
VDD
SO3
SO4
SO5
CLK
CL
PRO
SHIFT RESISTOR
LATCH
SELECTOR
OUT1
OUT2
OUT3
OUT62
OUT63
OUT64
64 PIN
OUTPUT
SU3
SU4
To 3rd 96pins of
SCAN ELECTRODES
To 4th 96pins of
SCAN ELECTRODES
pins of
ECTRODES

TH-50PHD8BK/BS/EK/ES
SU-Board Block Diagram

15.49. SU-Board (1 of 2) Schematic Diagram


SU-BOARD TNPA3219AB (1/2)
SU1
To 1st 96pins of
SCAN ELECTRODES
IC6901
C0HBC0000007
PDP SCAN DRIVER
Thermal Pad
IC6902
C0HBC0000007
PDP SCAN DRIVER
Thermal Pad
Vf
VF5V
D6902
MAZ80560HL
C6900
50V 2200p
C6901
16V 1u
R6901
220
R6912
10k
R6910
10k
C6902
16V 1u
R6907 10k
R6908 10k
D6909
B0ECHP000003
R6902
220
C6918
250V
0.1u
C6917
250V
0.1u
R6909
220k
C6908
50V
2200p
D6901
MAZ80560HL
AG_FSI
AG_FCL
AG_FCLK
AG_PRO
AG_FSO1
AG_FSO2
TO
SC-BOARD
(SC45)
SU45
COMPONENT (LOWER) SIDE
FOIL (UPPER) SIDE
Vf
FSI
FCL
FCLK
PRO
VF5V
VF5V
Vf
A
B
C
D
E
1
2
3
4

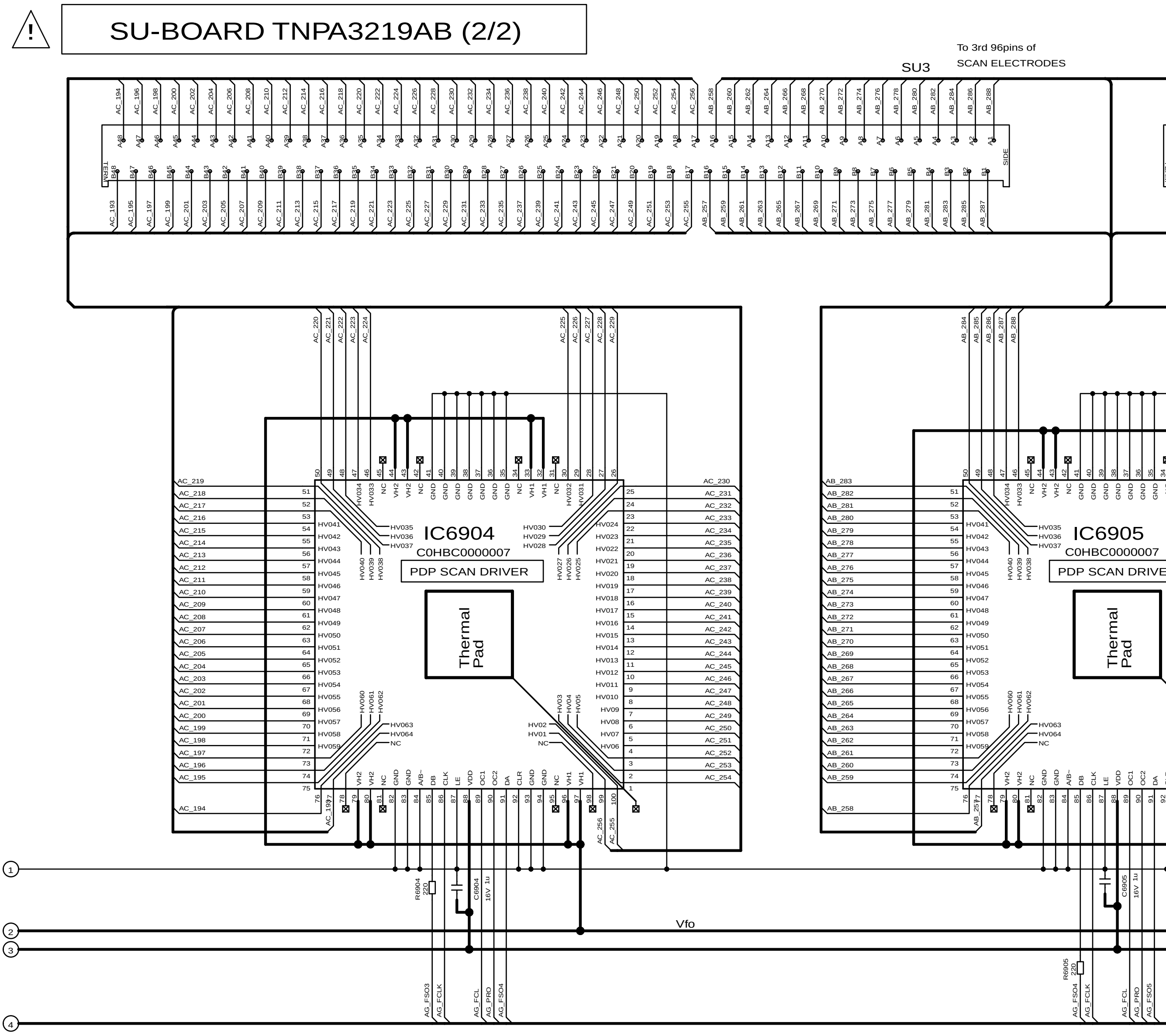
TH-50PHD8BK/BS/EK/ES
SU-Board (1 of 2) Schematic Diagram

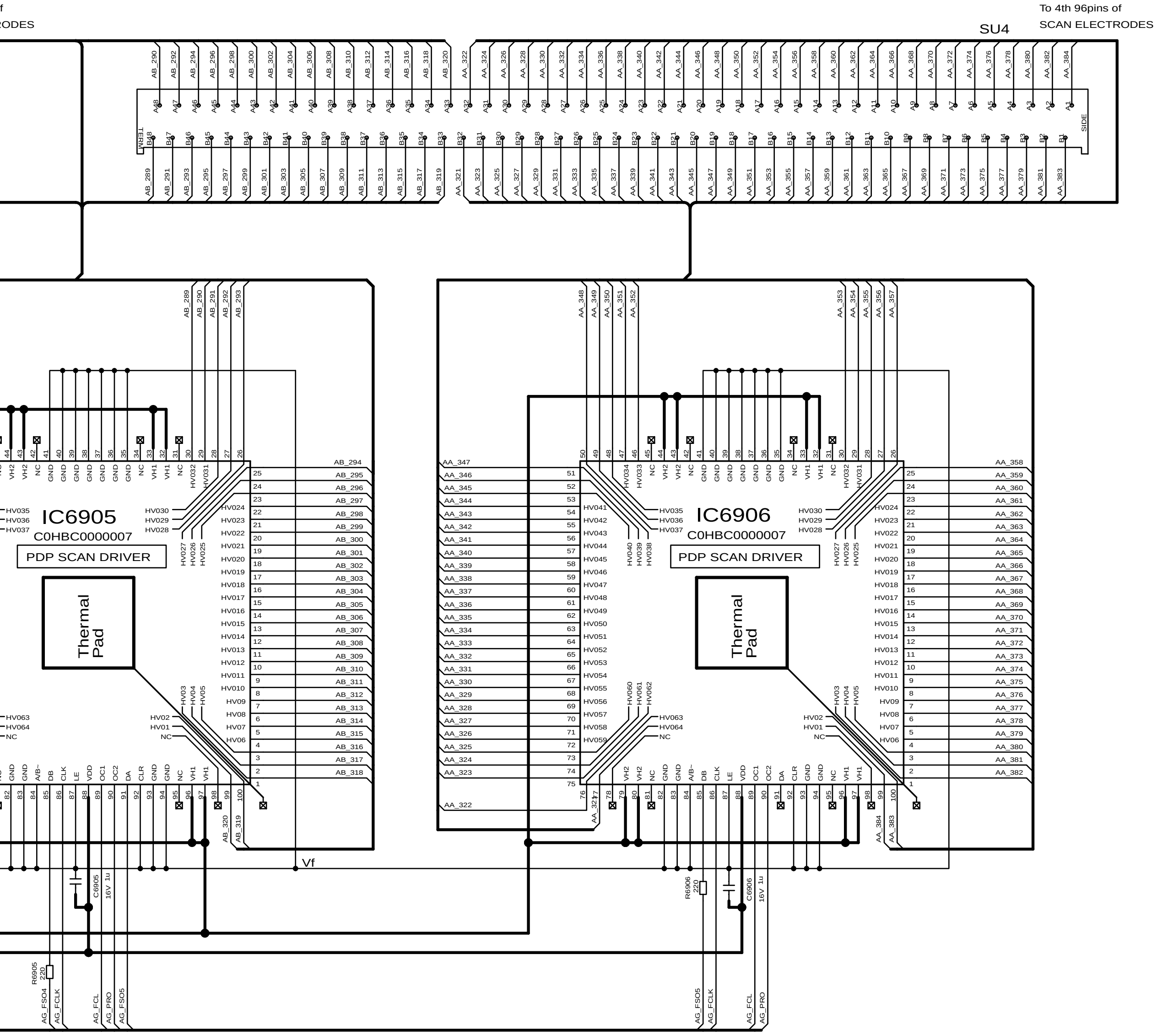

of
RODES
To 2nd 96pins of
SCAN ELECTRODES
SU2
SIDE
6902
C0000007
CAN DRIVER
Thermal Pad
IC6903
C0HBC0000007
PDP SCAN DRIVER
Thermal Pad
R6907 10k
R6908 10k
R6903 220
C6903 16V 1u
R6911 220k
D6908 B0ECHP000003
AG_FCL
AG_PRO
AG_FSO2
AG_FCLK
AG_FSO3
Vscn
Vf
C6910 250V 0.1u
C6909 250V 0.1u
①
②
③
④
Vf
SU41
TO
SC-BOARD
(SC41)
Vscn
Vfo

TH-50PHD8BK/BS/EK/ES
SU-Board (1 of 2) Schematic Diagram

4 5 6 7 8

15.50. SU-Board (2 of 2) Schematic Diagram

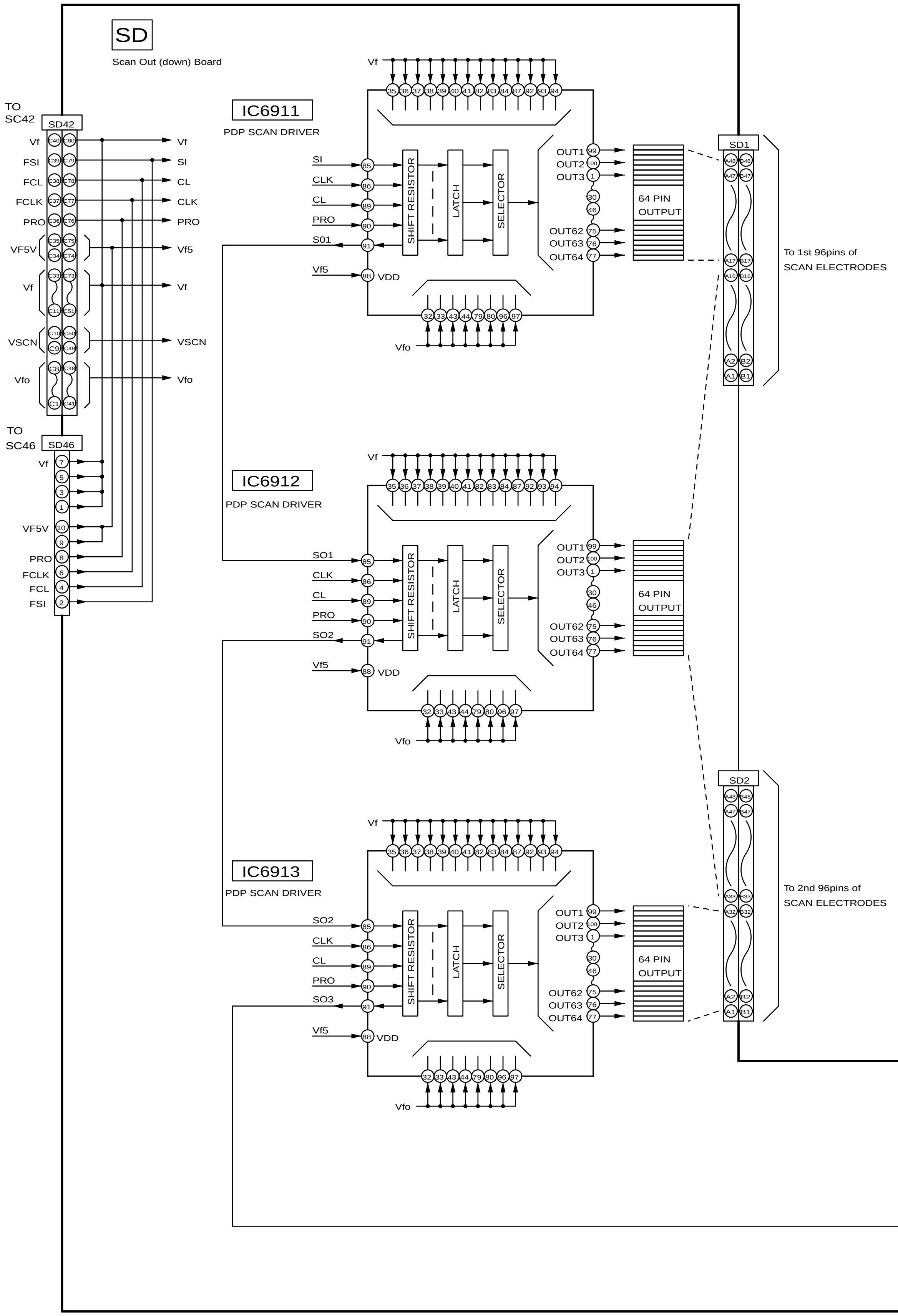

SU-BOARD TNPA3219AB (2/2)
To 3rd 96pins of
SCAN ELECTRODES
SU3
SIDE
IC6904
C0HBC0000007
PDP SCAN DRIVER
Thermal Pad
IC6905
C0HBC0000007
PDP SCAN DRIVE
R6904
220
C6904
16V 1u
C6905
16V 1u
R6905
220
Vfo
AG_FSO3
AG_FCLK
AG_FCL
AG_PRO
AG_FSO4
AG_FSO5
1
2
3
4


To 4th 96pins of
SCAN ELECTRODES
SU4
SIDE
IC6905
C0HBC0000007
PDP SCAN DRIVER
Thermal Pad
IC6906
C0HBC0000007
PDP SCAN DRIVER
Thermal Pad
Vf
R6905
220
C6905
16V 1u
R6906
220
C6906
16V 1u
AG_FSO4
AG_FCLK
AG_FCL
AG_PRO
AG_FSO5
AB_289
AB_319
AB_320
AA_321
AA_322
AA_347
AA_383
AA_384
HV01
HV02
HV03
HV04
HV05
VH1
VH2
GND
NC
VDD
OC1
OC2
DA
CLR
CLK
LE
DB
A/B-

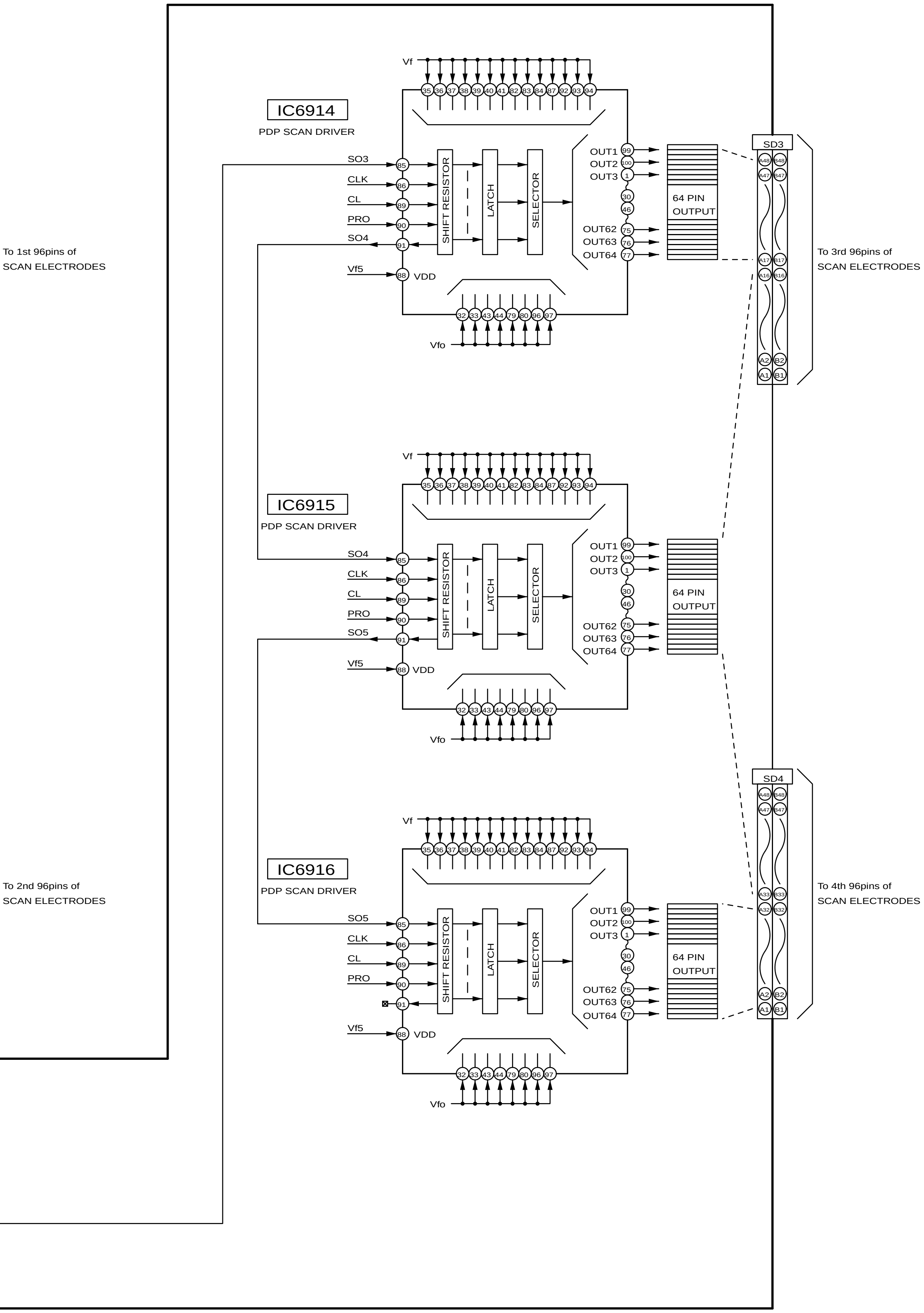
TH-50PHD8BK/BS/EK/ES
SU-Board (2 of 2) Schematic Diagram

12 13 14 15

15.51. SD-Board Block Diagram

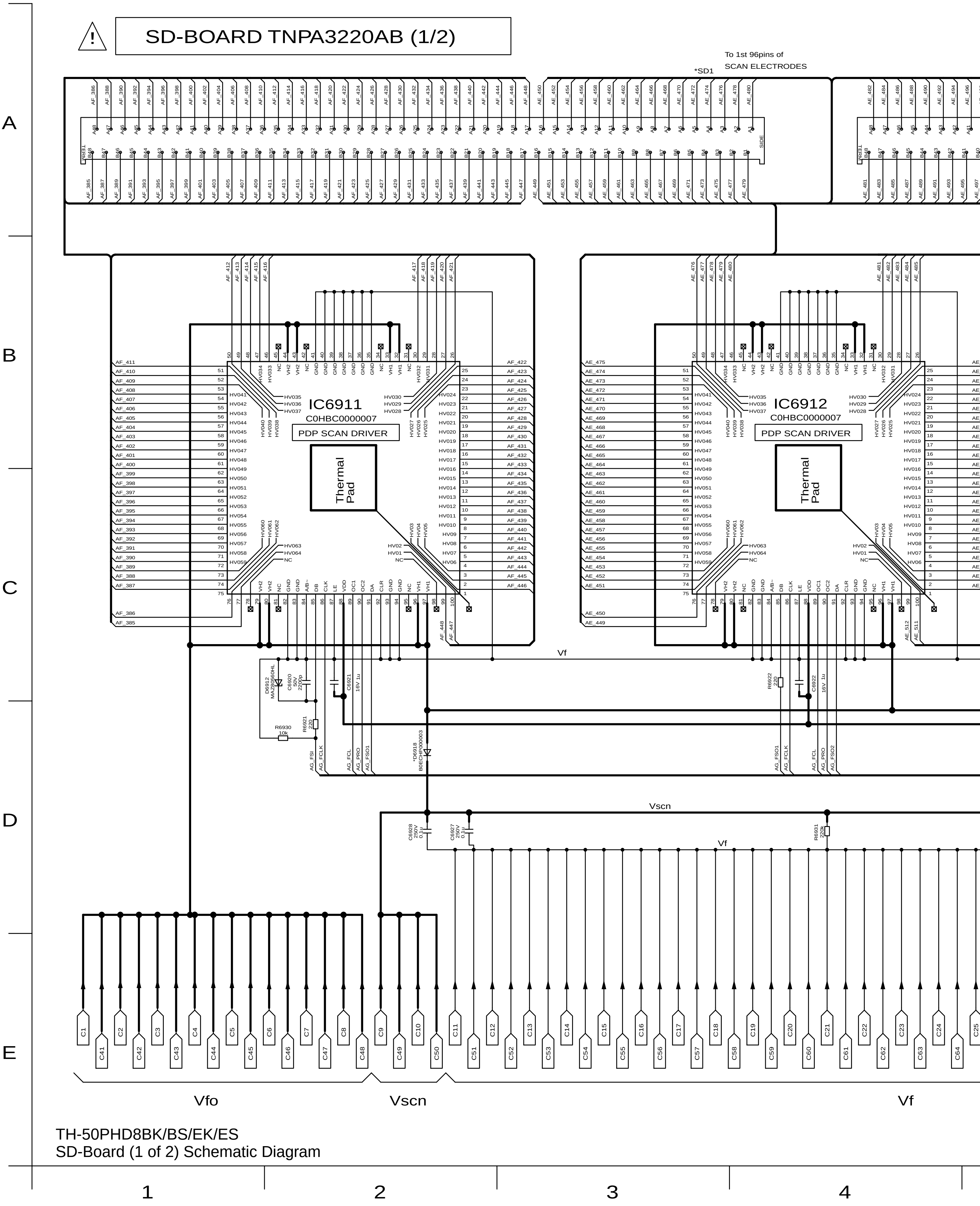

SD
Scan Out (down) Board
TO SC42
SD42
Vf
FSI
FCL
FCLK
PRO
VF5V
Vf
VSCN
Vfo
SI
CL
CLK
PRO
Vf5
Vf
VSCN
Vfo
TO SC46
SD46
Vf
VF5V
PRO
FCLK
FCL
FSI
IC6911
PDP SCAN DRIVER
IC6912
PDP SCAN DRIVER
IC6913
PDP SCAN DRIVER
SI
CLK
CL
PRO
S01
SO1
SO2
SO3
Vf5
VDD
SHIFT RESISTOR
LATCH
SELECTOR
OUT1
OUT2
OUT3
OUT62
OUT63
OUT64
64 PIN OUTPUT
Vfo
SD1
SD2
To 1st 96pins of SCAN ELECTRODES
To 2nd 96pins of SCAN ELECTRODES

TH-50PHD8BK/BS/EK/ES
SD-Board Block Diagram

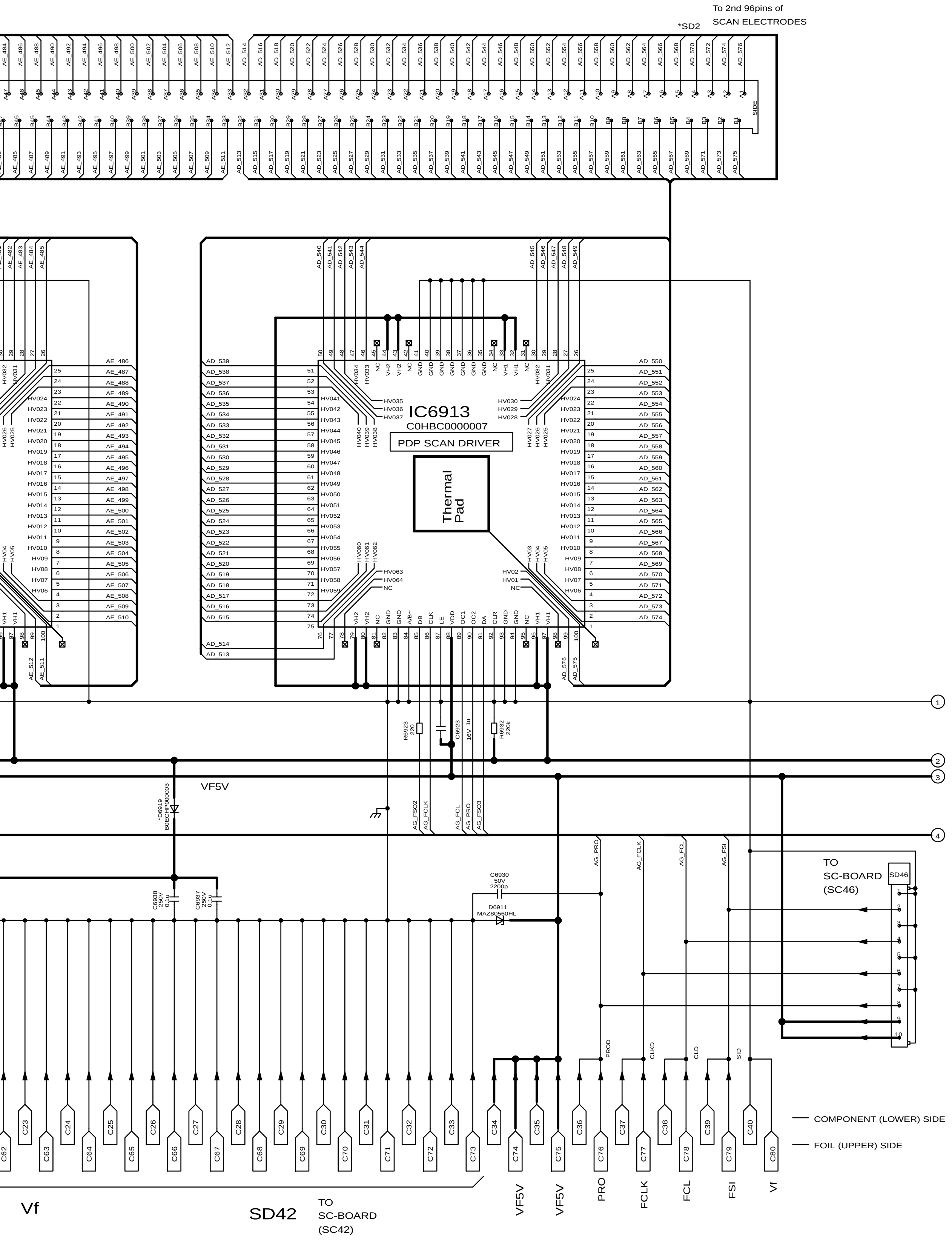

IC6914
PDP SCAN DRIVER
IC6915
PDP SCAN DRIVER
IC6916
PDP SCAN DRIVER
Vf
Vfo
Vf5
VDD
SO3
SO4
SO5
CLK
CL
PRO
SHIFT RESISTOR
LATCH
SELECTOR
OUT1
OUT2
OUT3
OUT62
OUT63
OUT64
64 PIN OUTPUT
SD3
SD4
A48
B48
A47
B47
A17
B17
A16
B16
A33
B33
A32
B32
A2
B2
A1
B1
To 1st 96pins of SCAN ELECTRODES
To 2nd 96pins of SCAN ELECTRODES
To 3rd 96pins of SCAN ELECTRODES
To 4th 96pins of SCAN ELECTRODES

TH-50PHD8BK/BS/EK/ES
SD-Board Block Diagram

15.52. SD-Board (1 of 2) Schematic Diagram

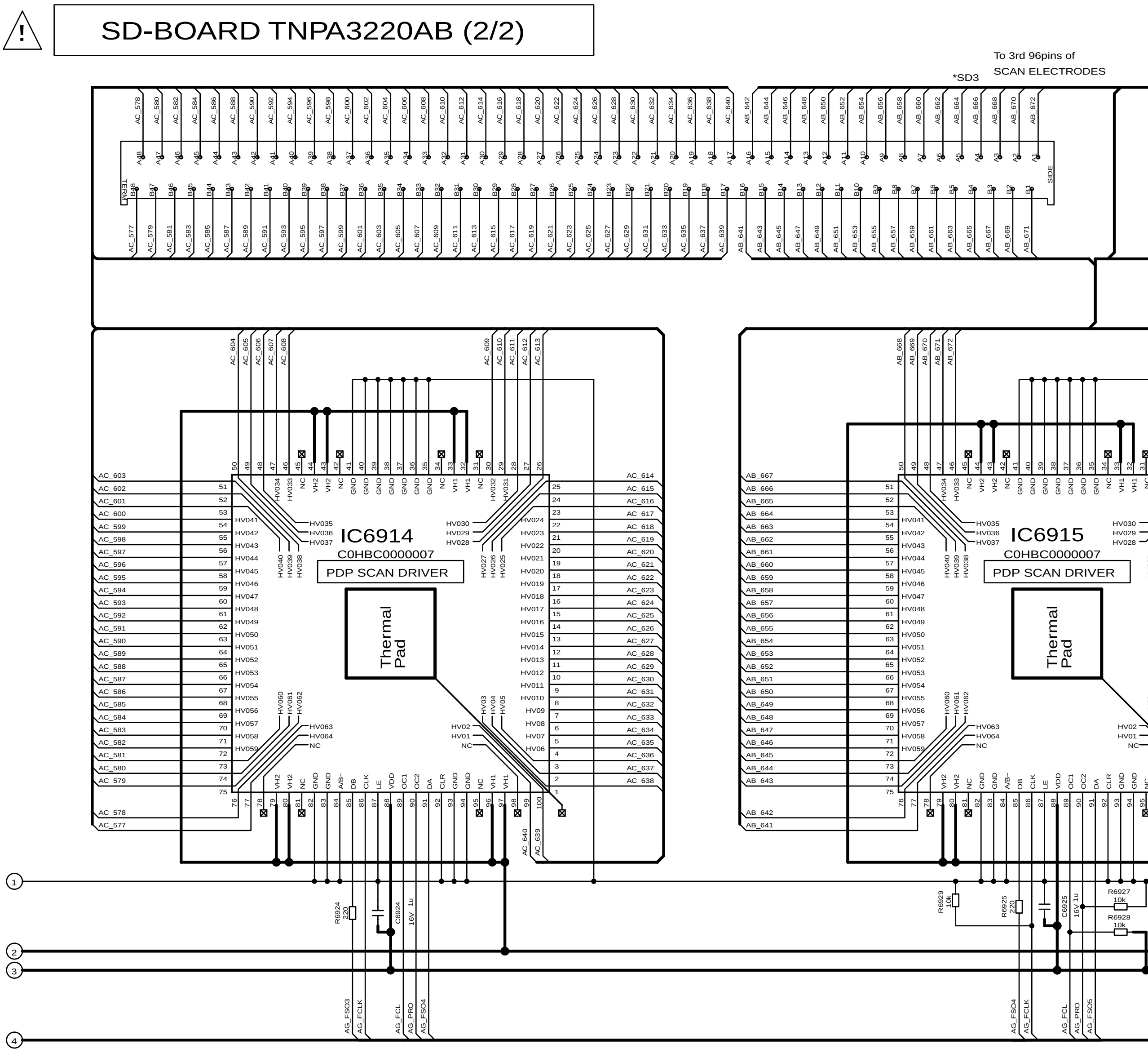

SD-BOARD TNPA3220AB (1/2)
To 1st 96pins of
SCAN ELECTRODES
*SD1
TERM
SIDE
IC6911
C0HBC0000007
PDP SCAN DRIVER
Thermal Pad
IC6912
C0HBC0000007
PDP SCAN DRIVER
Thermal Pad
Vf
Vscn
Vfo
D6912 MAZ80560HL
C6920 50V 2200p
C6921 16V 1u
R6921 220
R6930 10k
*D6918 B0ECHP000003
C6922 16V 1u
R6922 220
C6928 250V 0.1u
C6927 250V 0.1u
R6931 220k
AG_FSI
AG_FCLK
AG_FCL
AG_PRO
AG_FSO1
AG_FSO2
A
B
C
D
E
1
2
3
4

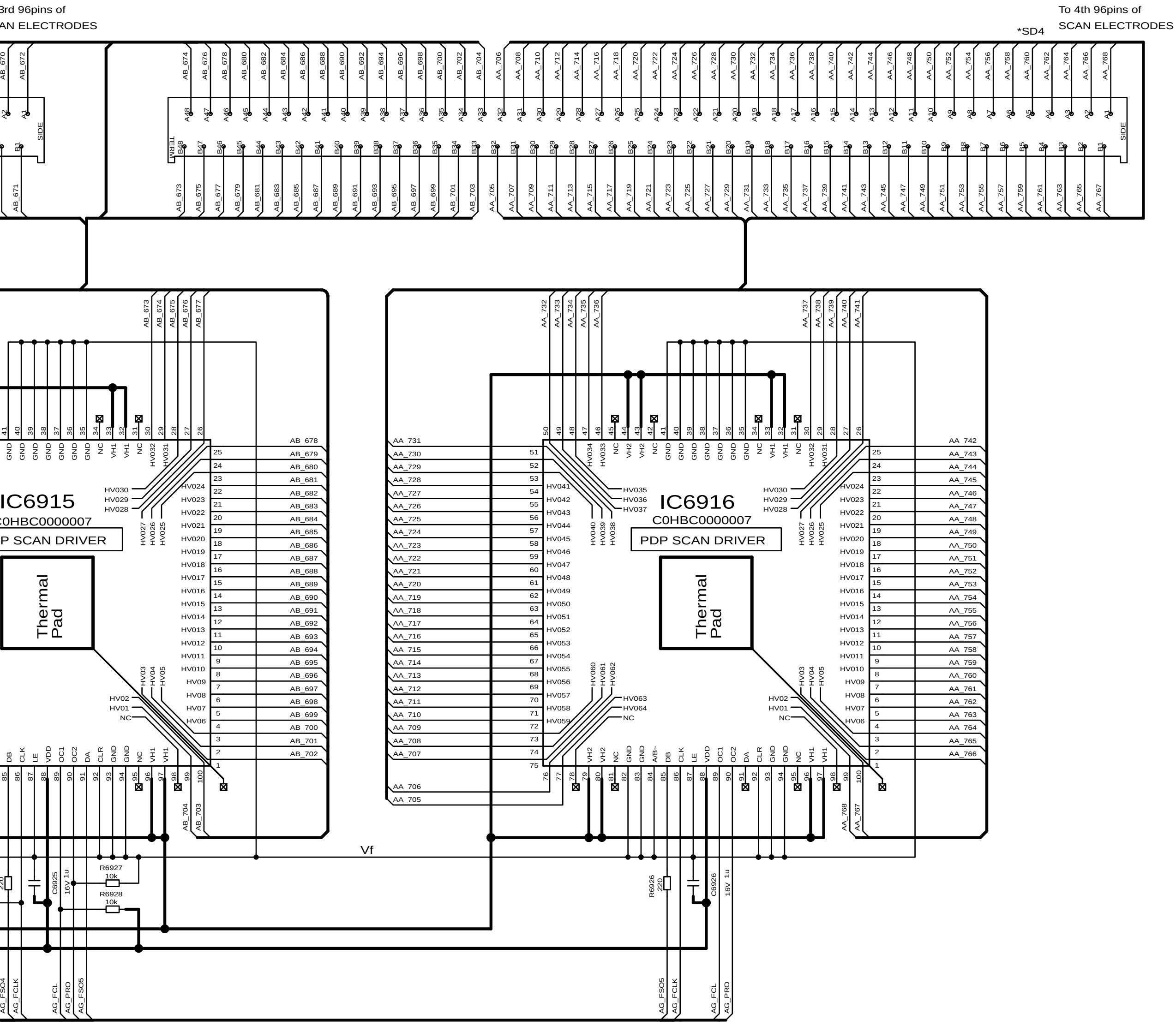
TH-50PHD8BK/BS/EK/ES
SD-Board (1 of 2) Schematic Diagram


To 2nd 96pins of
SCAN ELECTRODES
*SD2
SIDE
IC6913
C0HBC0000007
PDP SCAN DRIVER
Thermal
Pad
R6923
220
C6923
16V 1u
R6932
220k
VF5V
*D6919
B0ECHP000003
C6938
250V
0.1u
C6937
250V
0.1u
C6930
50V
2200p
D6911
MAZ80560HL
AG_FSO2
AG_FCLK
AG_FCL
AG_PRO
AG_FSO3
AG_PRO
AG_FCLK
AG_FCL
AG_FSI
TO
SC-BOARD
(SC46)
SD46
PROD
CLKD
CLD
SID
COMPONENT (LOWER) SIDE
FOIL (UPPER) SIDE
Vf
SD42
TO
SC-BOARD
(SC42)
VF5V
VF5V
PRO
FCLK
FCL
FSI
Vf
1
2
3
4

TH-50PHD8BK/BS/EK/ES
SD-Board (1 of 2) Schematic Diagram

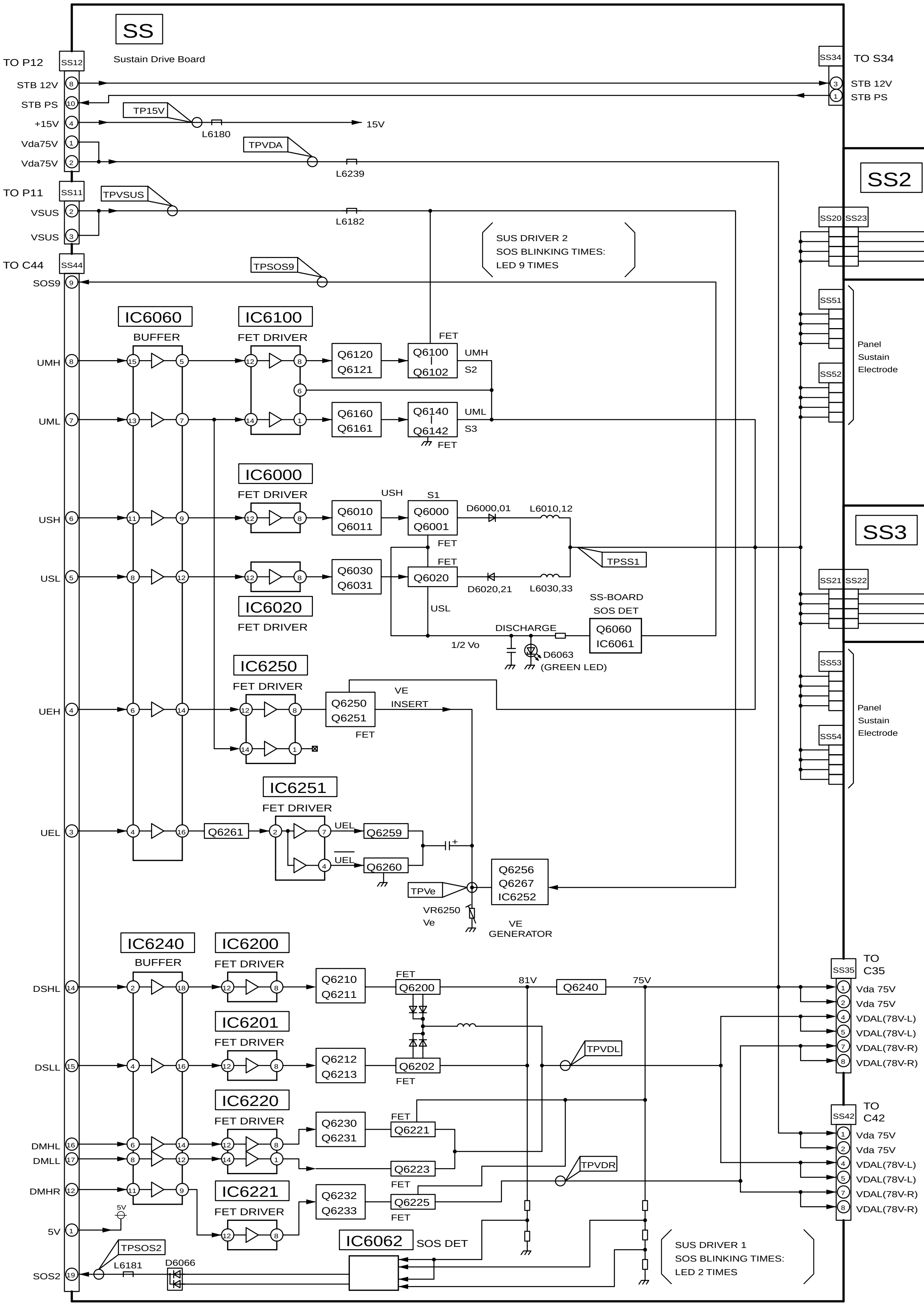
15.53. SD-Board (2 of 2) Schematic Diagram

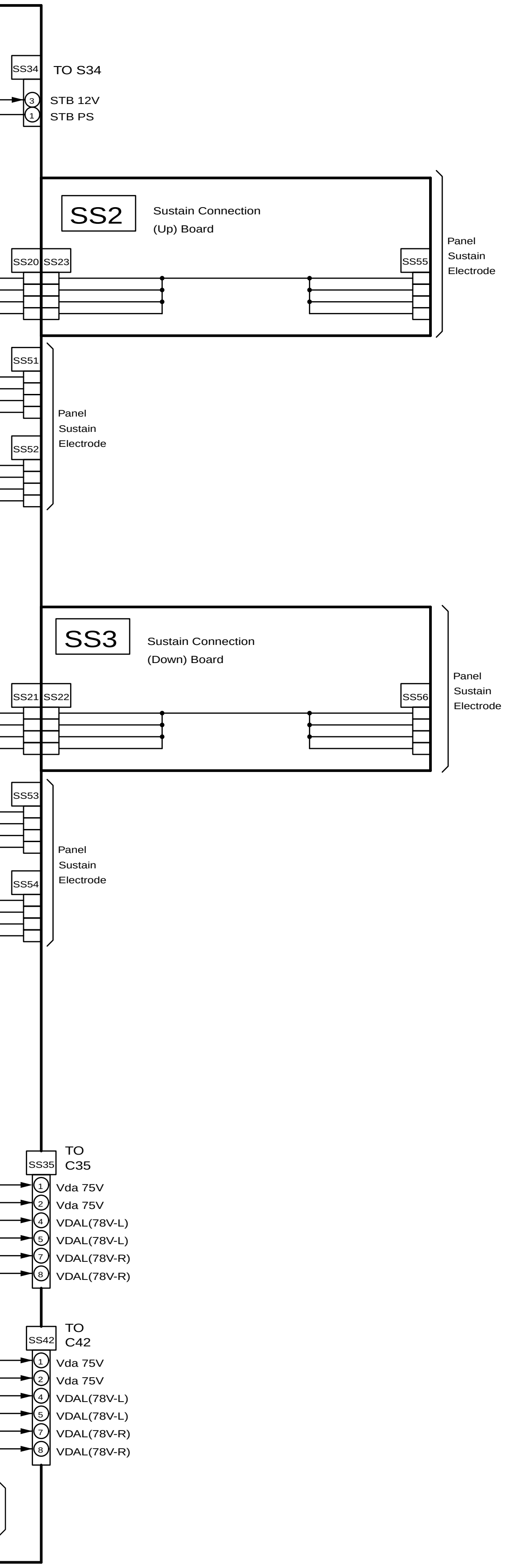

SD-BOARD TNPA3220AB (2/2)
To 3rd 96pins of
SCAN ELECTRODES
*SD3
IC6914
C0HBC0000007
PDP SCAN DRIVER
Thermal Pad
IC6915
C0HBC0000007
PDP SCAN DRIVER
Thermal Pad
R6924 220
C6924 16V 1u
R6929 10k
R6925 220
C6925 16V 1u
R6927 10k
R6928 10k
AG_FSO3
AG_FCLK
AG_FCL
AG_PRO
AG_FSO4
AG_FSO5
1
2
3
4


3rd 96pins of
AN ELECTRODES
To 4th 96pins of
SCAN ELECTRODES
*SD4
SIDE
TERM
IC6915
0HBC0000007
P SCAN DRIVER
Thermal
Pad
IC6916
C0HBC0000007
PDP SCAN DRIVER
Thermal
Pad
Vf
R6927
10k
R6928
10k
C6925
16V 1u
R6926
220
C6926
16V 1u
AG_FSO4
AG_FCLK
AG_FCL
AG_PRO
AG_FSO5
AG_FSO5
AG_FCLK
AG_FCL
AG_PRO

TH-50PHD8BK/BS/EK/ES
SD-Board (2 of 2) Schematic Diagram

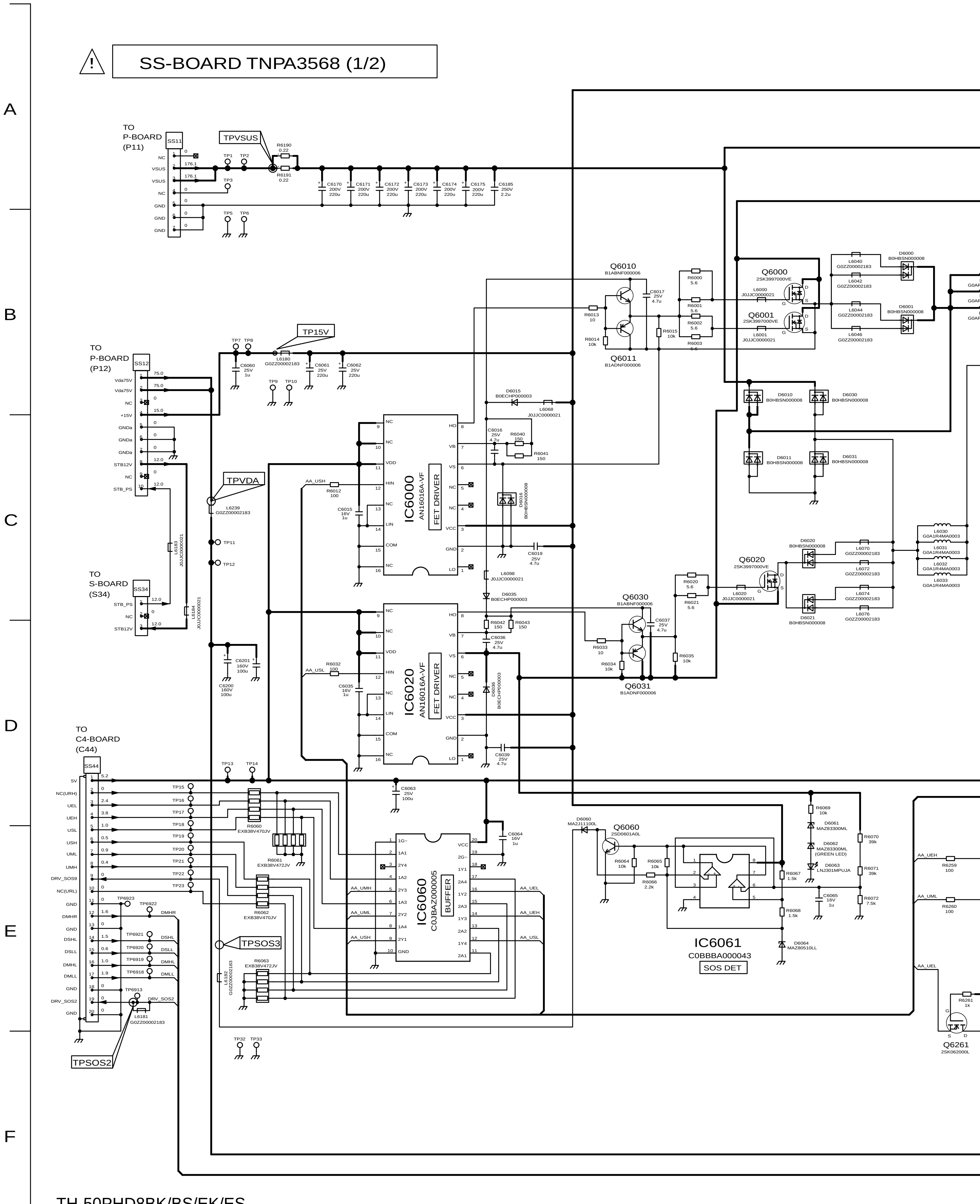
15.54. SS, SS2 and SS3-Board Block Diagram

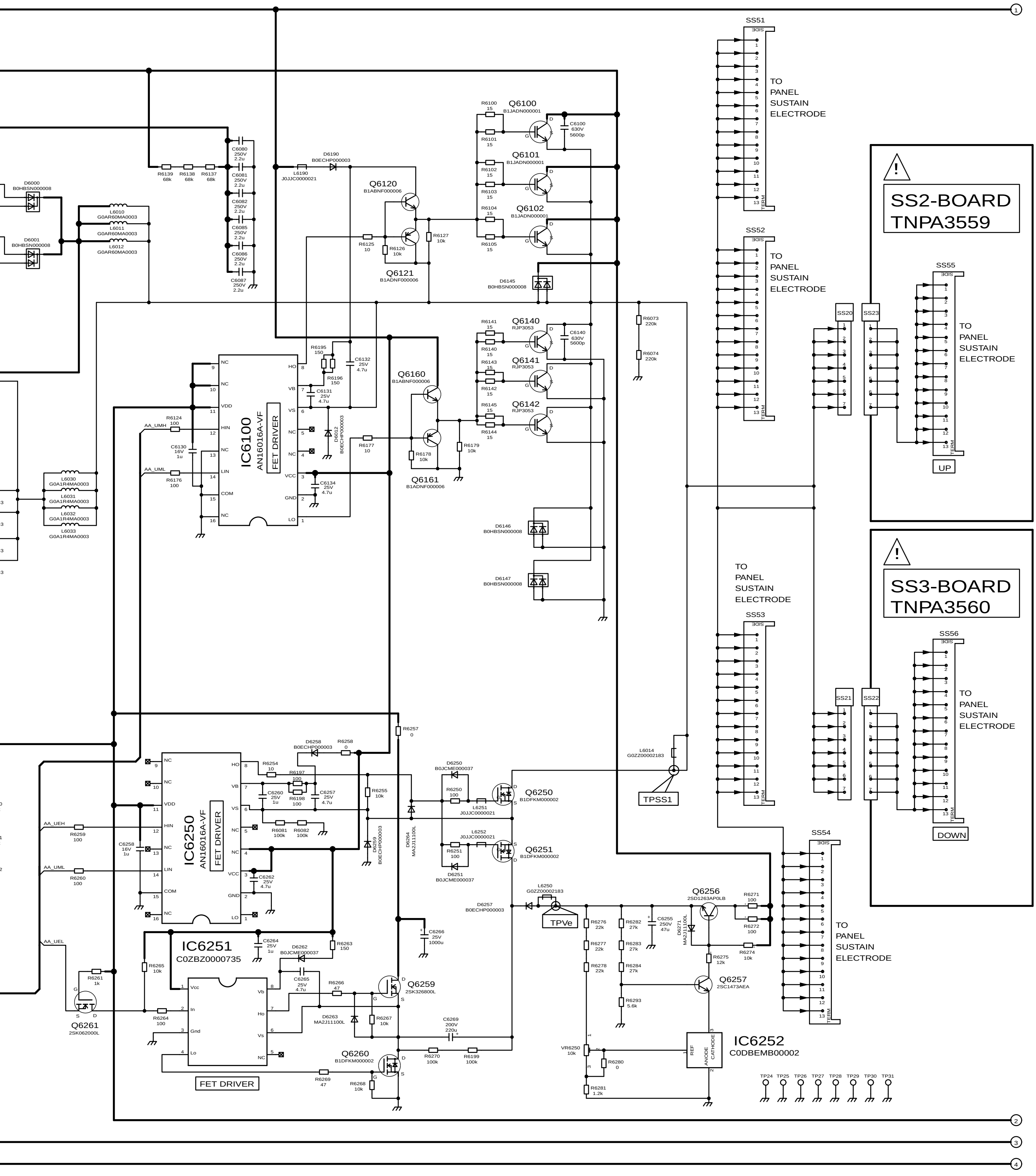

SS
Sustain Drive Board
TO P12
SS12
STB 12V
STB PS
+15V
Vda75V
Vda75V
TP15V
L6180
15V
TPVDA
L6239
TO P11
SS11
VSUS
VSUS
TPVSUS
L6182
TO C44
SS44
SOS9
TPSOS9
SUS DRIVER 2
SOS BLINKING TIMES:
LED 9 TIMES
SS34
TO S34
STB 12V
STB PS
SS2
SS20
SS23
SS51
SS52
Panel
Sustain
Electrode
IC6060
BUFFER
IC6100
FET DRIVER
UMH
UML
Q6120
Q6121
Q6100
Q6102
FET
UMH
S2
Q6160
Q6161
Q6140
Q6142
UML
S3
FET
IC6000
FET DRIVER
USH
USL
Q6010
Q6011
USH
S1
Q6000
Q6001
D6000,01
L6010,12
FET
FET
Q6030
Q6031
Q6020
D6020,21
L6030,33
TPSS1
IC6020
FET DRIVER
USL
SS-BOARD
SOS DET
Q6060
IC6061
DISCHARGE
1/2 Vo
D6063
(GREEN LED)
SS3
SS21
SS22
SS53
SS54
Panel
Sustain
Electrode
IC6250
FET DRIVER
UEH
Q6250
Q6251
FET
VE
INSERT
IC6251
FET DRIVER
UEL
Q6261
UEL
Q6259
UEL
Q6260
TPVe
VR6250
Ve
Q6256
Q6267
IC6252
VE
GENERATOR
IC6240
BUFFER
IC6200
FET DRIVER
DSHL
DSLL
Q6210
Q6211
FET
Q6200
81V
Q6240
75V
Q6212
Q6213
Q6202
FET
TPVDL
IC6201
FET DRIVER
IC6220
FET DRIVER
DMHL
DMLL
DMHR
Q6230
Q6231
FET
Q6221
Q6223
FET
TPVDR
Q6225
FET
IC6221
FET DRIVER
Q6232
Q6233
IC6062
SOS DET
5V
5V
SOS2
TPSOS2
L6181
D6066
SUS DRIVER 1
SOS BLINKING TIMES:
LED 2 TIMES
SS35
TO
C35
Vda 75V
Vda 75V
VDAL(78V-L)
VDAL(78V-L)
VDAL(78V-R)
VDAL(78V-R)
SS42
TO
C42
Vda 75V
Vda 75V
VDAL(78V-L)
VDAL(78V-L)
VDAL(78V-R)
VDAL(78V-R)


SS34
TO S34
3
STB 12V
1
STB PS
SS2
Sustain Connection
(Up) Board
SS20
SS23
SS55
Panel
Sustain
Electrode
SS51
Panel
Sustain
Electrode
SS52
SS3
Sustain Connection
(Down) Board
SS21
SS22
SS56
Panel
Sustain
Electrode
SS53
Panel
Sustain
Electrode
SS54
SS35
TO
C35
1
Vda 75V
2
Vda 75V
4
VDAL(78V-L)
5
VDAL(78V-L)
7
VDAL(78V-R)
8
VDAL(78V-R)
SS42
TO
C42
1
Vda 75V
2
Vda 75V
4
VDAL(78V-L)
5
VDAL(78V-L)
7
VDAL(78V-R)
8
VDAL(78V-R)

TH-50PHD8BK/BS/EK/ES
SS, SS2 and SS3-Board Block Diagram

15.55. SS-Board (1 of 2), SS2 and SS3-Board Schematic Diagram


SS-BOARD TNPA3568 (1/2)
A
B
C
D
E
F
TO P-BOARD (P11)
SS11
NC
VSUS
VSUS
NC
GND
GND
GND
TPVSUS
TP1
TP2
TP3
TP5
TP6
R6190 0.22
R6191 0.22
C6170 200V 220u
C6171 200V 220u
C6172 200V 220u
C6173 200V 220u
C6174 200V 220u
C6175 200V 220u
C6185 250V 2.2u
TO P-BOARD (P12)
SS12
Vda75V
Vda75V
NC
+15V
GNDa
GNDa
GNDa
STB12V
NC
STB_PS
TP15V
TP7
TP8
L6180 G0ZZ00002183
C6060 25V 1u
C6061 25V 220u
C6062 25V 220u
TP9
TP10
TPVDA
L6239 G0ZZ00002183
TP11
TP12
L6183 J0JJC0000021
L6184 J0JJC0000021
TO S-BOARD (S34)
SS34
STB_PS
NC
STB12V
C6201 160V 100u
C6200 160V 100u
IC6000
AN16016A-VF
FET DRIVER
IC6020
AN16016A-VF
FET DRIVER
AA_USH
R6012 100
C6015 16V 1u
AA_USL
R6032 100
C6035 16V 1u
NC
VDD
HIN
LIN
COM
HO
VB
VS
VCC
GND
LO
D6015 B0ECHP000003
L6068 J0JJC0000021
C6016 25V 4.7u
R6040 150
R6041 150
D6016 B0HBSN000008
C6019 25V 4.7u
L6098 J0JJC0000021
D6035 B0ECHP000003
R6042 150
R6043 150
C6036 25V 4.7u
D6036 B0ECHP000003
C6039 25V 4.7u
Q6010 B1ABNF000006
Q6011 B1ADNF000006
C6017 25V 4.7u
R6013 10
R6014 10k
R6015 10k
R6000 5.6
R6001 5.6
R6002 5.6
R6003 5.6
Q6000 2SK3997000VE
Q6001 2SK3997000VE
L6000 J0JJC0000021
L6001 J0JJC0000021
L6040 G0ZZ00002183
L6042 G0ZZ00002183
L6044 G0ZZ00002183
L6046 G0ZZ00002183
D6000 B0HBSN000008
D6001 B0HBSN000008
D6010 B0HBSN000008
D6030 B0HBSN000008
D6011 B0HBSN000008
D6031 B0HBSN000008
Q6020 2SK3997000VE
L6020 J0JJC0000021
R6020 5.6
R6021 5.6
D6020 B0HBSN000008
D6021 B0HBSN000008
L6070 G0ZZ00002183
L6072 G0ZZ00002183
L6074 G0ZZ00002183
L6076 G0ZZ00002183
L6030 G0A1R4MA0003
L6031 G0A1R4MA0003
L6032 G0A1R4MA0003
L6033 G0A1R4MA0003
Q6030 B1ABNF000006
Q6031 B1ADNF000006
C6037 25V 4.7u
R6033 10
R6034 10k
R6035 10k
TO C4-BOARD (C44)
SS44
5V
NC(URH)
UEL
UEH
USL
USH
UML
UMH
DRV_SOS9
NC(URL)
GND
DMHR
GND
DSHL
DSLL
DMHL
DMLL
GND
DRV_SOS2
GND
TP13
TP14
TP15
TP16
TP17
TP18
TP19
TP20
TP21
TP22
TP23
TP6923
TP6922
TP6921
TP6920
TP6919
TP6918
TP6913
L6181 G0ZZ00002183
TPSOS2
TPSOS3
R6060 EXB38V470JV
R6061 EXB38V472JV
R6062 EXB38V470JV
R6063 EXB38V472JV
L6182 G0ZZ00002183
C6063 25V 100u
IC6060
C0JBAZ000005
BUFFER
C6064 16V 1u
AA_UMH
AA_UML
AA_USH
AA_UEL
AA_UEH
AA_USL
TP32
TP33
D6060 MA2J11100L
Q6060 2SD0601A0L
R6064 10k
R6065 10k
R6066 2.2k
IC6061
C0BBBA000043
SOS DET
R6067 1.5k
R6068 1.5k
C6065 16V 1u
D6064 MAZ80510LL
R6069 10k
D6061 MAZ83300ML
D6062 MAZ83300ML (GREEN LED)
D6063 LNJ301MPUJA
R6070 39k
R6071 39k
R6072 7.5k
R6259 100
R6260 100
R6261 1k
Q6261 2SK062000L
1
2
3
4
5

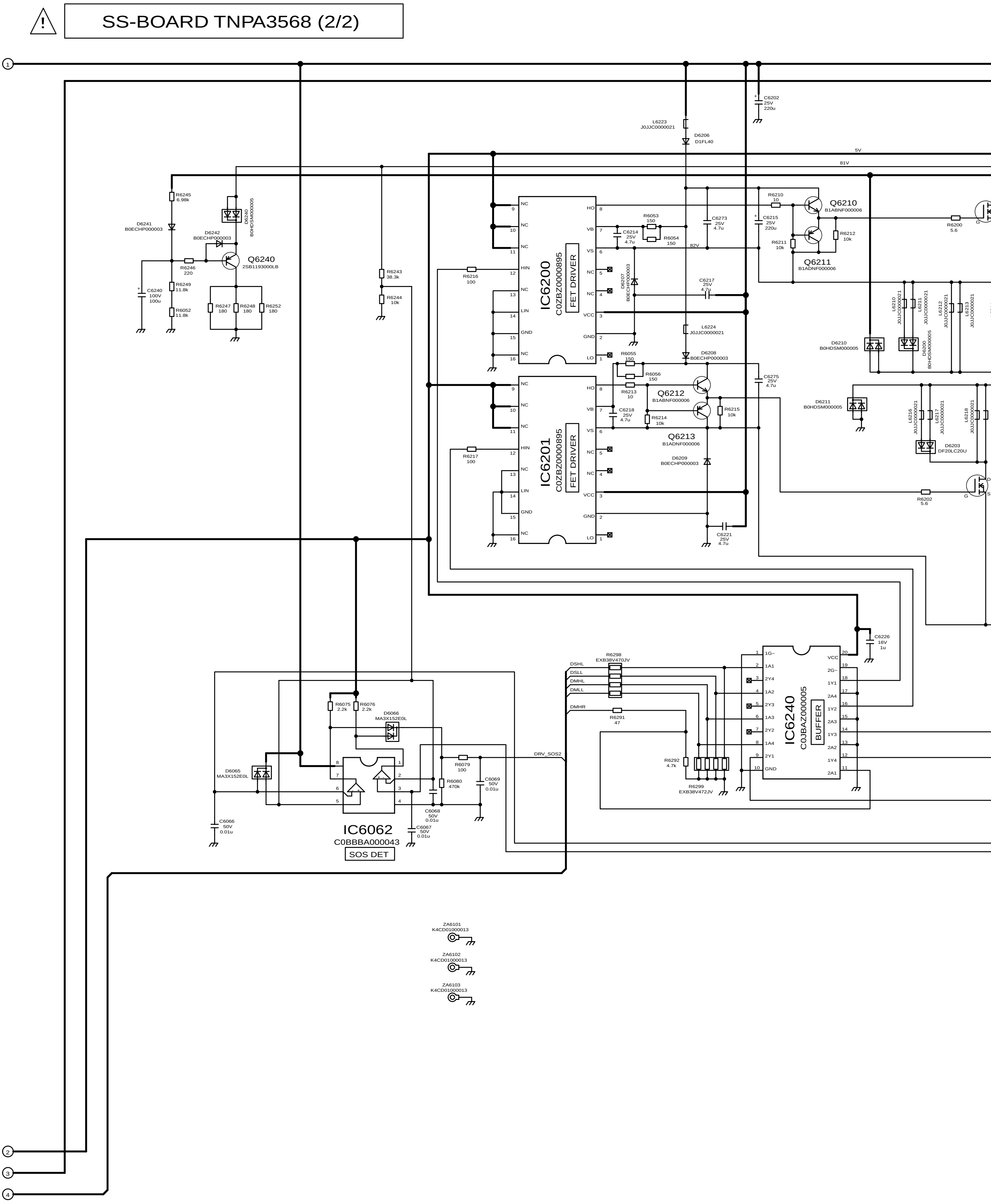


1
2
3
4
SS51
SS52
SS53
SS54
SS55
SS56
SS20
SS23
SS21
SS22
SIDE
TERM
TO PANEL SUSTAIN ELECTRODE
SS2-BOARD
TNPA3559
SS3-BOARD
TNPA3560
UP
DOWN
Q6100
B1JADN000001
Q6101
B1JADN000001
Q6102
B1JADN000001
Q6120
B1ABNF000006
Q6121
B1ADNF000006
Q6140
RJP3053
Q6141
RJP3053
Q6142
RJP3053
Q6160
B1ABNF000006
Q6161
B1ADNF000006
C6100 630V 5600p
C6140 630V 5600p
D6145 B0HBSN000008
D6146 B0HBSN000008
D6147 B0HBSN000008
D6190 B0ECHP000003
L6190 J0JJC0000021
R6139 68k
R6138 68k
R6137 68k
C6080 250V 2.2u
C6081 250V 2.2u
C6082 250V 2.2u
C6085 250V 2.2u
C6086 250V 2.2u
C6087 250V 2.2u
D6000 B0HBSN000008
D6001 B0HBSN000008
L6010 G0AR60MA0003
L6011 G0AR60MA0003
L6012 G0AR60MA0003
L6030 G0A1R4MA0003
L6031 G0A1R4MA0003
L6032 G0A1R4MA0003
L6033 G0A1R4MA0003
R6073 220k
R6074 220k
IC6100
AN16016A-VF
FET DRIVER
NC
VDD
HIN
LIN
COM
HO
VB
VS
VCC
GND
LO
AA_UMH
AA_UML
R6124 100
R6176 100
C6130 16V 1u
R6195 150
R6196 150
C6131 25V 4.7u
C6132 25V 4.7u
C6134 25V 4.7u
D6012 B0ECHP000003
R6177 10
R6178 10k
R6179 10k
R6125 10
R6126 10k
R6127 10k
IC6250
AN16016A-VF
FET DRIVER
AA_UEH
AA_UML
AA_UEL
R6259 100
R6260 100
C6258 16V 1u
D6258 B0ECHP000003
R6258 0
R6254 10
R6197 100
R6198 100
C6260 25V 1u
C6257 25V 4.7u
R6081 100k
R6082 100k
C6262 25V 4.7u
R6255 10k
R6257 0
D6259 B0ECHP000003
D6264 MA2J11100L
D6250 B0JCME000037
R6250 100
L6251 J0JJC0000021
Q6250 B1DFKM000002
L6252 J0JJC0000021
R6251 100
D6251 B0JCME000037
Q6251 B1DFKM000002
L6014 G0ZZ00002183
TPSS1
IC6251
C0ZBZ0000735
FET DRIVER
Vcc
In
Gnd
Lo
Vb
Ho
Vs
NC
C6264 25V 1u
D6262 B0JCME000037
C6265 25V 4.7u
R6263 150
R6265 10k
R6264 100
R6261 1k
Q6261 2SK0620001
R6266 47
Q6259 2SK326800L
D6263 MA2J11100L
R6267 10k
C6266 25V 1000u
C6269 200V 220u
Q6260 B1DFKM000002
R6269 47
R6268 10k
R6270 100k
R6199 100k
D6257 B0ECHP000003
L6250 G0ZZ00002183
TPVe
R6276 22k
R6277 22k
R6278 22k
R6282 27k
R6283 27k
R6284 27k
R6293 5.6k
C6255 250V 47u
D6271 MA2J11100L
Q6256 2SD1263AP0LB
R6271 100
R6272 100
R6274 10k
R6275 12k
Q6257 2SC1473AEA
IC6252
C0DBEMB00002
REF
ANODE
CATHODE
VR6250 10k
R6280 0
R6281 1.2k
TP24
TP25
TP26
TP27
TP28
TP29
TP30
TP31

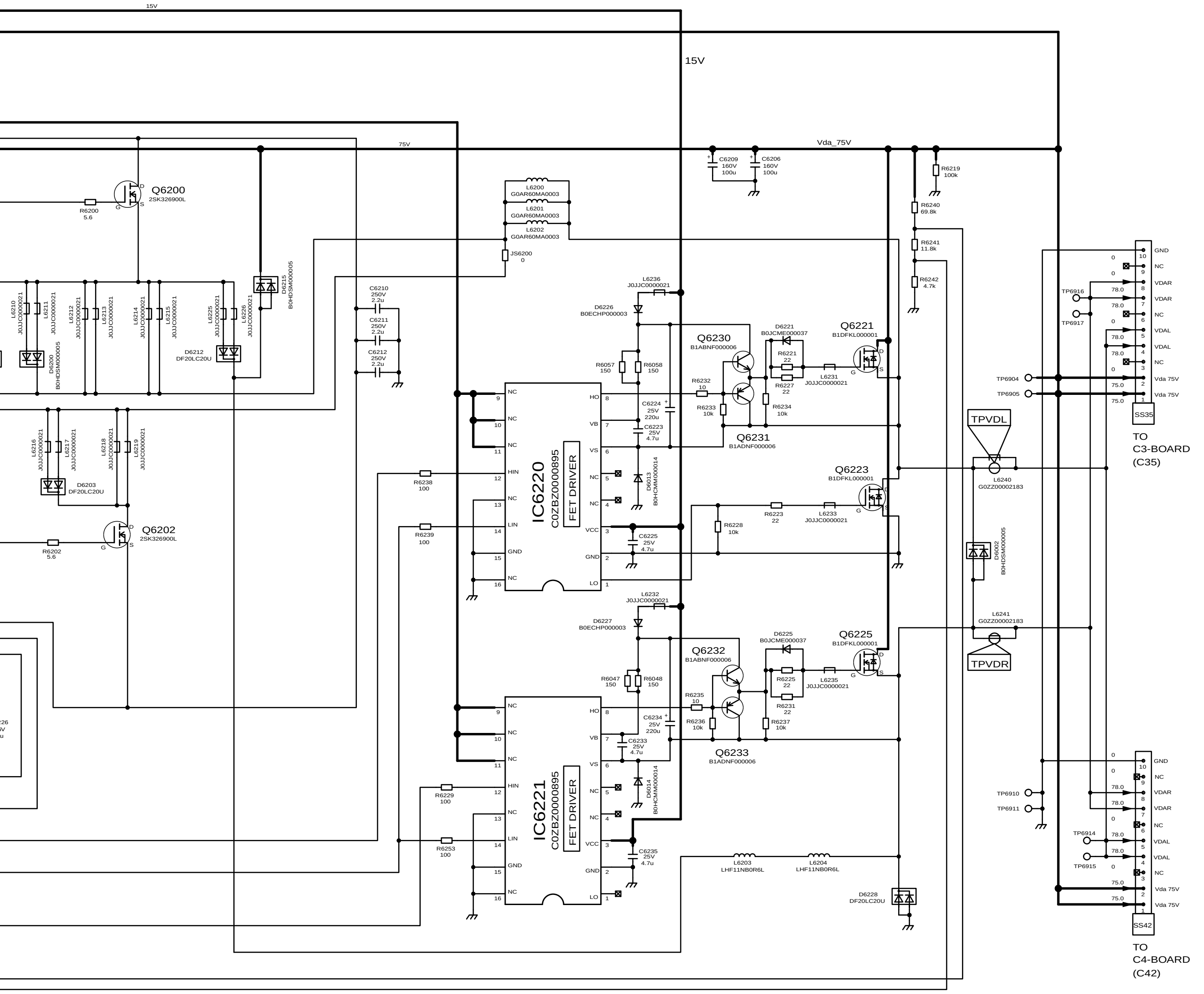
TH-50PHD8BK/BS/EK/ES
SS-Board (1 of 2), SS2 and SS3-Board Schematic Diagram

5 6 7 8 9

15.56. SS-Board (2 of 2) Schematic Diagram



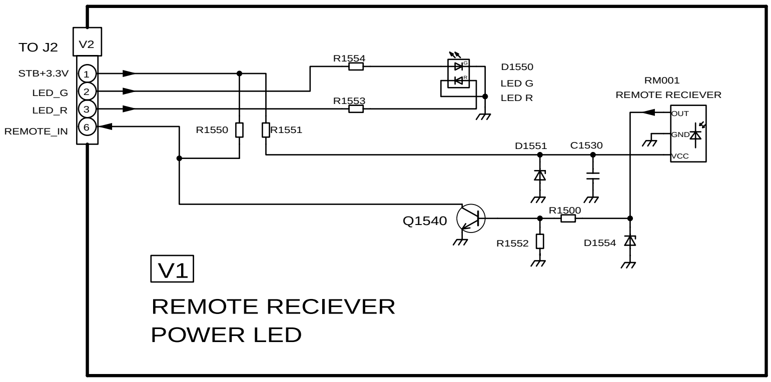
SS-BOARD TNPA3568 (2/2)
1
2
3
4
C6202 25V 220u
L6223 J0JJC0000021
D6206 D1FL40
5V
81V
R6245 6.98k
D6240 B0HDSM000005
D6241 B0ECHP000003
D6242 B0ECHP000003
Q6240 2SB1193000LB
R6246 220
R6249 11.8k
C6240 100V 100u
R6052 11.8k
R6247 180
R6248 180
R6252 180
R6243 38.3k
R6244 10k
R6216 100
IC6200
C0ZBZ0000895
FET DRIVER
NC
HIN
LIN
GND
HO
VB
VS
VCC
LO
R6053 150
C6214 25V 4.7u
R6054 150
82V
C6273 25V 4.7u
D6207 B0ECHP000003
C6217 25V 4.7u
L6224 J0JJC0000021
D6208 B0ECHP000003
R6055 150
R6056 150
R6210 10
C6215 25V 220u
Q6210 B1ABNF000006
R6211 10k
R6212 10k
Q6211 B1ADNF000006
R6200 5.6
L6210 J0JJC0000021
L6211 J0JJC0000021
L6212 J0JJC0000021
L6213 J0JJC0000021
D6210 B0HDSM000005
D6200 B0HDSM000005
C6275 25V 4.7u
IC6201
C0ZBZ0000895
FET DRIVER
R6217 100
R6213 10
Q6212 B1ABNF000006
C6218 25V 4.7u
R6214 10k
R6215 10k
Q6213 B1ADNF000006
D6209 B0ECHP000003
C6221 25V 4.7u
D6211 B0HDSM000005
L6216 J0JJC0000021
L6217 J0JJC0000021
L6218 J0JJC0000021
D6203 DF20LC20U
R6202 5.6
G
S
D
C6226 16V 1u
R6298 EXB38V470JV
DSHL
DSLL
DMHL
DMLL
DMHR
R6291 47
R6292 4.7k
R6299 EXB38V472JV
IC6240
C0JBAZ000005
BUFFER
1G~
1A1
2Y4
1A2
2Y3
1A3
2Y2
1A4
2Y1
GND
VCC
2G~
1Y1
2A4
1Y2
2A3
1Y3
2A2
1Y4
2A1
DRV_SOS2
R6075 2.2k
R6076 2.2k
D6066 MA3X152E0L
D6065 MA3X152E0L
R6079 100
R6080 470k
C6069 50V 0.01u
C6068 50V 0.01u
C6067 50V 0.01u
C6066 50V 0.01u
IC6062
C0BBBA000043
SOS DET
ZA6101 K4CD01000013
ZA6102 K4CD01000013
ZA6103 K4CD01000013
10
11
12
13
14

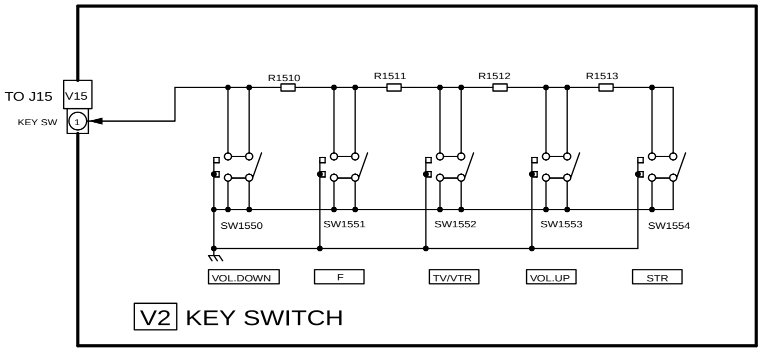

15V
15V
75V
Vda_75V
Q6200
2SK326900L
R6200
5.6
Q6202
2SK326900L
R6202
5.6
L6210 J0JJC0000021
L6211 J0JJC0000021
L6212 J0JJC0000021
L6213 J0JJC0000021
L6214 J0JJC0000021
L6215 J0JJC0000021
L6225 J0JJC0000021
L6226 J0JJC0000021
L6216 J0JJC0000021
L6217 J0JJC0000021
L6218 J0JJC0000021
L6219 J0JJC0000021
D6200 B0HDSM000005
D6212 DF20LC20U
D6203 DF20LC20U
D6215 B0HDSM000005
C6210 250V 2.2u
C6211 250V 2.2u
C6212 250V 2.2u
L6200 G0AR60MA0003
L6201 G0AR60MA0003
L6202 G0AR60MA0003
JS6200 0
C6209 160V 100u
C6206 160V 100u
R6219 100k
R6240 69.8k
R6241 11.8k
R6242 4.7k
L6236 J0JJC0000021
D6226 B0ECHP000003
R6057 150
R6058 150
Q6230 B1ABNF000006
D6221 B0JCME000037
R6221 22
R6227 22
L6231 J0JJC0000021
Q6221 B1DFKL000001
R6232 10
R6233 10k
R6234 10k
Q6231 B1ADNF000006
C6224 25V 220u
C6223 25V 4.7u
D6013 B0HCMM000014
C6225 25V 4.7u
Q6223 B1DFKL000001
R6223 22
L6233 J0JJC0000021
R6228 10k
R6238 100
R6239 100
IC6220 C0ZBZ0000895 FET DRIVER
NC 9 NC 10 NC 11 HIN 12 NC 13 LIN 14 GND 15 NC 16
HO 8 VB 7 VS 6 NC 5 NC 4 VCC 3 GND 2 LO 1
L6232 J0JJC0000021
D6227 B0ECHP000003
R6047 150
R6048 150
Q6232 B1ABNF000006
D6225 B0JCME000037
R6225 22
R6231 22
L6235 J0JJC0000021
Q6225 B1DFKL000001
R6235 10
R6236 10k
R6237 10k
Q6233 B1ADNF000006
C6234 25V 220u
C6233 25V 4.7u
D6014 B0HCMM000014
C6235 25V 4.7u
R6229 100
R6253 100
IC6221 C0ZBZ0000895 FET DRIVER
L6203 LHF11NB0R6L
L6204 LHF11NB0R6L
D6228 DF20LC20U
TPVDL
L6240 G0ZZ00002183
D6002 B0HDSM000005
L6241 G0ZZ00002183
TPVDR
TP6916
TP6917
TP6904
TP6905
TP6910
TP6911
TP6914
TP6915
GND NC VDAR VDAR NC VDAL VDAL NC Vda 75V Vda 75V
10 9 8 7 6 5 4 3 2 1
0 0 78.0 78.0 0 78.0 78.0 0 75.0 75.0
SS35
TO C3-BOARD (C35)
SS42
TO C4-BOARD (C42)
C6226 25V 220u

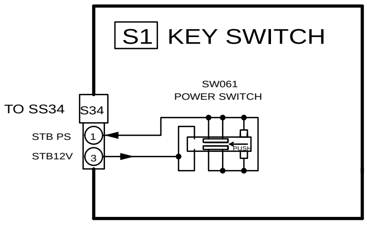
TH-50PHD8BK/BS/EK/ES
SS-Board (2 of 2) Schematic Diagram

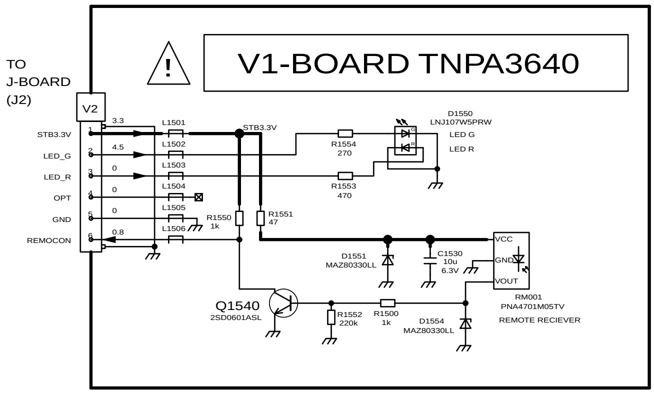
14 15 16 17 18

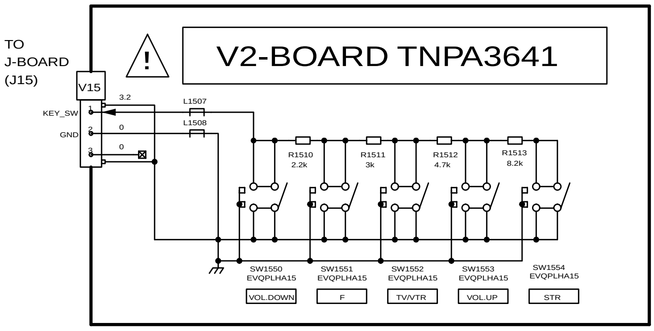
15.57. S1, V1 and V2-Board Block and Schematic Diagram

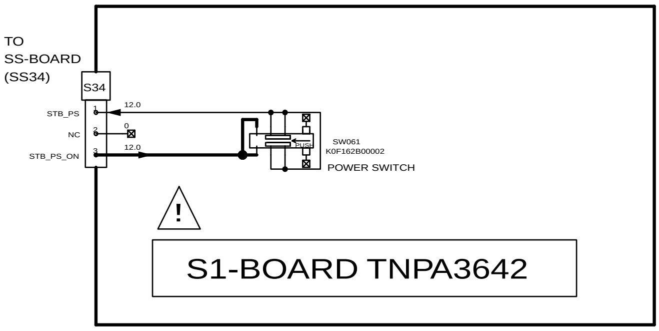

TO J2
V2
STB+3.3V
LED_G
LED_R
REMOTE_IN
1
2
3
6
R1554
R1553
R1550
R1551
D1550
LED G
LED R
RM001
REMOTE RECIEVER
OUT
GND
VCC
D1551
C1530
Q1540
R1500
R1552
D1554
V1
REMOTE RECIEVER
POWER LED

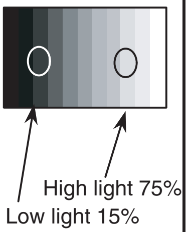

TO J15
V15
KEY SW
1
R1510
R1511
R1512
R1513
SW1550
SW1551
SW1552
SW1553
SW1554
VOL.DOWN
F
TV/VTR
VOL.UP
STR
V2
KEY SWITCH


S1
KEY SWITCH
SW061
POWER SWITCH
TO SS34
S34
STB PS
STB12V
1
3


TO
J-BOARD
(J2)
V1-BOARD TNPA3640
V2
STB3.3V
LED_G
LED_R
OPT
GND
REMOCON
3.3
4.5
0
0
0
0.8
L1501
L1502
L1503
L1504
L1505
L1506
STB3.3V
R1554
270
R1553
470
D1550
LNJ107W5PRW
LED G
LED R
R1550
1k
R1551
47
D1551
MAZ80330LL
C1530
10u
6.3V
VCC
GND
VOUT
RM001
PNA4701M05TV
REMOTE RECIEVER
Q1540
2SD0601ASL
R1552
220k
R1500
1k
D1554
MAZ80330LL


TO
J-BOARD
(J15)
V2-BOARD TNPA3641
V15
KEY_SW
GND
3.2
0
0
L1507
L1508
R1510
2.2k
R1511
3k
R1512
4.7k
R1513
8.2k
SW1550
EVQPLHA15
VOL.DOWN
SW1551
EVQPLHA15
F
SW1552
EVQPLHA15
TV/VTR
SW1553
EVQPLHA15
VOL.UP
SW1554
EVQPLHA15
STR


TO
SS-BOARD
(SS34)
S34
STB_PS
NC
STB_PS_ON
12.0
0
12.0
SW061
K0F162B00002
POWER SWITCH
S1-BOARD TNPA3642

	INPUT	Equipment	Setting	Alignment menu	Procedure
1	PC (VGA) Gray Scale Pattern 	Color Analyzer	Picture menu: Standard Picture: 25 Color temperature: **Cool** Aspect: Full POS./Size: Normal Component/ RGB-IN Select: RGB IIC mode: Panel W/B Adj	PANEL W/B G cut off PANEL W/B G Drive PANEL W/B B Drive R Drive PANEL W/B R,G,B Drive	Note: · Before adjustment, color signal has not been displayed on panel. · The pedestal adjustment has been done. · The signal root must be A side. 1) Set G cut off to " 80 ". 2)Find 75% (amplitude) of white area by color sensor. 3) Set G Drive to " E0 ". 4) Adjust B and R Drive to set the High color temperature as shown Table 1. 5) Increase equaly R, G and B Drive to get the largest level of 3 color drive to "FC".
2			Picture menu: Standard Picture: 25 Color temperature: **Normal** Aspect: Full POS./Size: Normal	PANEL W/B G cut off PANEL W/B R,G,B Drive	1) Change color temperature to "Normal". 2) In Mid color temperature, repeat the procedures 1) to 5) of Cool mode.
3			Picture menu: Standard Picture: 25 Color temperature: **Warm** Aspect: Full POS./Size: Normal	PANEL W/B G cut off PANEL W/B R,G,B Drive	1) Change color temperature to "Warm". 2) In Low color temperature, repeat the procedures 1) to 5) of Cool mode.
4	· NTSC · PAL · DVI				1) Copy the R drive, G drive and B drive data obtained in above steps into NTSC, PAL and DVI area.

Color Temp.	x	y
Cool(Hi)	0.276	0.276
Normal(Mid)	0.288	0.296
Warm(Low)	0.313	0.329

Table 1 W/B adjustment values

Color temperature	R	G	B
High	A0-11AD	A0-11AE	A0-11AF
Medium	A0-11B0	A0-11B1	A0-11B2
Low	A0-11B3	A0-11B4	A0-11B5

Table 2 Drive data addresses (PC/RGB)

Color temperature	R	G	B
High	A0-1180	A0-1181	A0-1182
Medium	A0-1183	A0-1184	A0-1185
Low	A0-1186	A0-1187	A0-1188

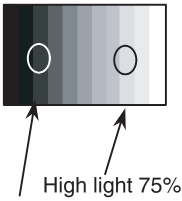
Table 3 Drive data addresses (NTSC)

Color temperature	R	G	B
High	A0-1189	A0-118A	A0-118B
Medium	A0-118C	A0-118D	A0-118E
Low	A0-118F	A0-1190	A0-1191

Table 4 Drive data addresses (PAL)

Color temperature	R	G	B
High	A0-11B6	A0-11B7	A0-11B8
Medium	A0-11B9	A0-11BA	A0-11BB
Low	A0-11BC	A0-11BD	A0-11BE

Table 5 Drive data addresses (DVI)

<table>
<tr><th></th><th>INPUT</th><th>Equipment</th><th>Setting</th><th>Alignment menu</th><th>Procedure</th></tr>
<tr><td>1</td><td rowspan="3">HD
(YUV2_HD)
Gray Scale
Pattern
 </td><td rowspan="3">Color
Analyzer</td><td>Picture menu: Standard
Picture: 25
Color temperature: Cool
Aspect: Full
POS./Sise: Normal
Component/ RGB-IN Select: COMPONENT
IIC mode: Panel W/B Adj</td><td>PANEL W/B G cut off
PANEL W/B G Drive
PANEL W/B B Drive R Drive
PANEL W/B R,G,B Drive</td><td>Note: · Before adjustment, color signal has not been displayed on panel.
· The pedestal adjustment has been done.
· The signal root must be A side.
1) Set G cut off to " 80 ".
2)Find 75% (amplitude) of white area by color sensor.
3) Set G Drive to " E0 ".
4) Adjust B and R Drive to set the High color temperature as shown Table 1.
5) Increase equaly R, G and B Drive to get the largest level of 3 color drive to "FC".
<table><tr><th>Color Temp.</th><th>x</th><th>y</th></tr><tr><td>Cool(Hi)</td><td>0.276</td><td>0.276</td></tr><tr><td>Normal(Mid)</td><td>0.288</td><td>0.296</td></tr><tr><td>Warm(Low)</td><td>0.313</td><td>0.329</td></tr></table>Table 1 W/B adjustment values</td></tr>
<tr><td>2</td><td>Picture menu: Standard
Picture: 25
Color temperature: Normal
Aspect: Full
POS./Sise: Normal</td><td>PANEL W/B G cut off
PANEL W/B R,G,B Drive</td><td>1) Change color temperature to "Normal".
2) In Mid color temperature, repeat the procedures 1) to 5) of Cool mode.</td></tr>
<tr><td>3</td><td>Picture menu: Standard
Picture: 25
Color temperature: Warm
Aspect: Full
POS./Sise: Normal</td><td>PANEL W/B G cut off
PANEL W/B R,G,B Drive</td><td>1) Change color temperature to "Warm".
2) In Low color temperature, repeat the procedures 1) to 5) of Cool mode.</td></tr>
<tr><td>4</td><td>· YUV1_525ip
· YUV3_625ip</td><td></td><td></td><td></td><td>1) Copy the R drive, G drive and B drive data obtained in above steps into YUV1_525ip, YUV3_625ip area.</td></tr>
</table>

Color temperature	R	G	B
High	A0-119B	A0-119C	A0-119D
Medium	A0-119E	A0-119F	A0-11A0
Low	A0-11A1	A0-11A2	A0-11A3

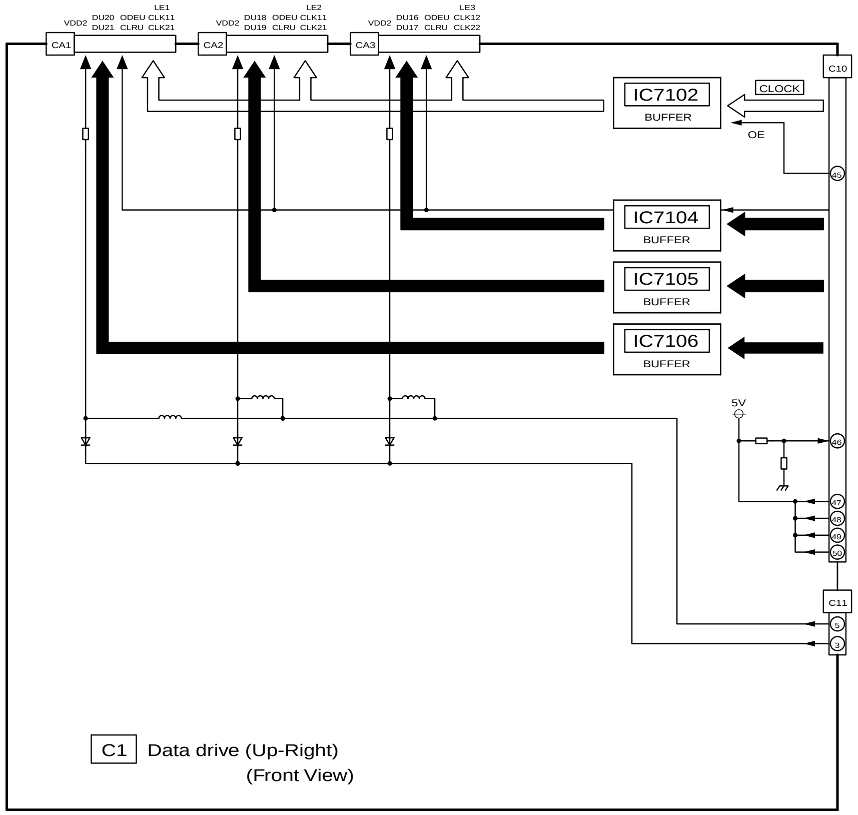
Table 2 Drive data addresses (YUV2_HD)

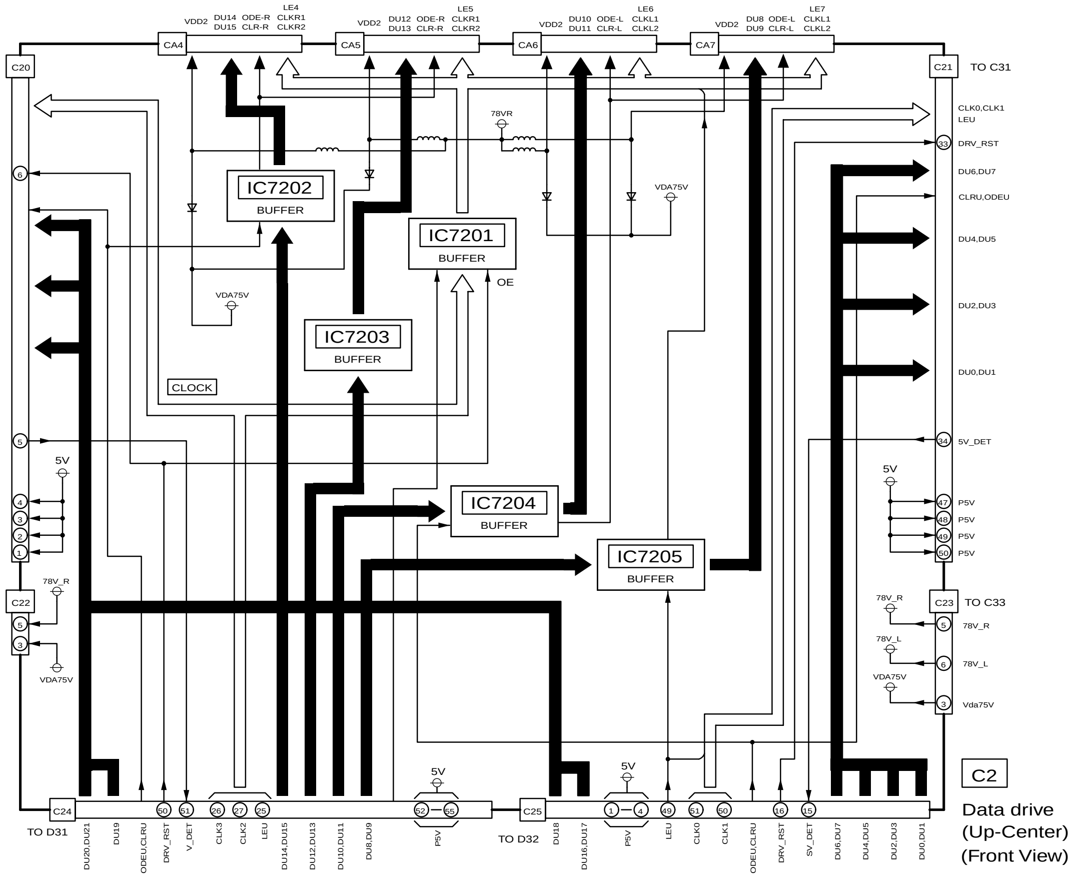
Color temperature	R	G	B
High	A0-1192	A0-1193	A0-1194
Medium	A0-1195	A0-1196	A0-1197
Low	A0-1198	A0-1199	A0-119A

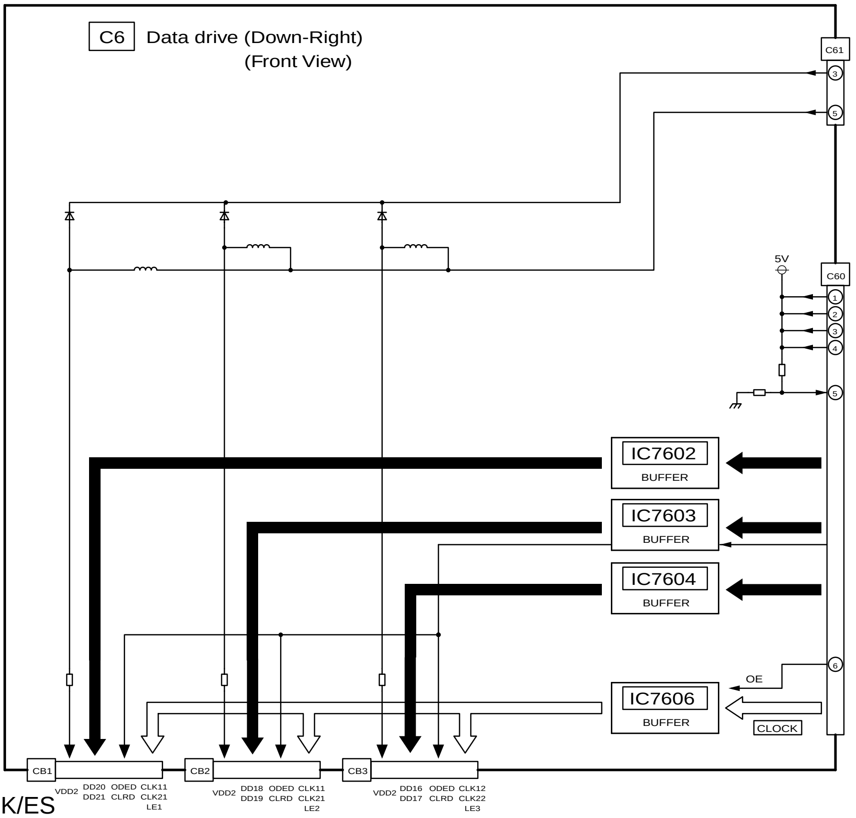
Table 3 Drive data addresses (YUV1_525ip)

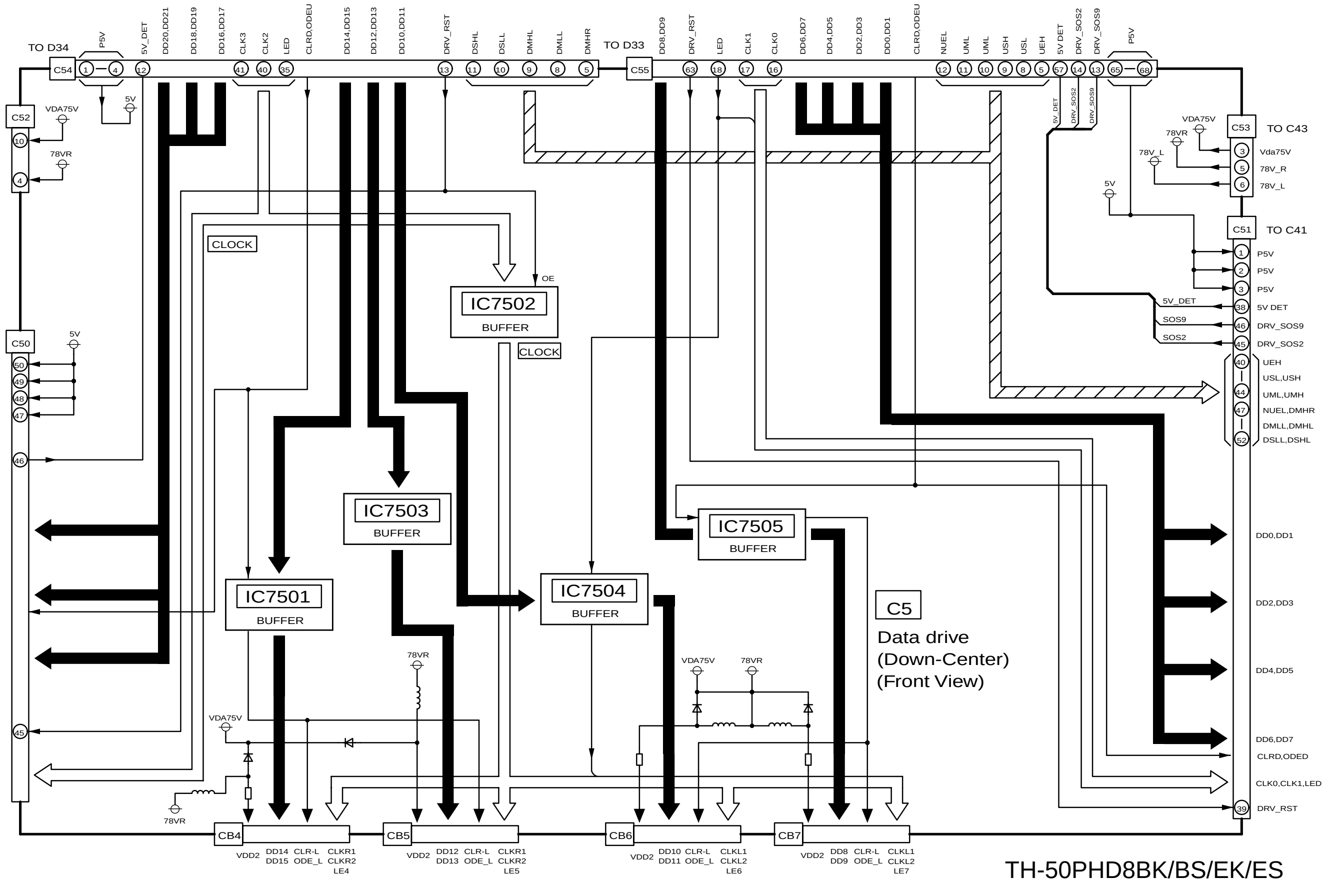
Color temperature	R	G	B
High	A0-11A4	A0-11A5	A0-11A6
Medium	A0-11A7	A0-11A8	A0-11A9
Low	A0-11AA	A0-11AB	A0-11AC

Table 4 Drive data addresses (YUV3_625ip)


C1
Data drive (Up-Right)
(Front View)
CA1
CA2
CA3
VDD2
DU20 DU21
ODEU CLRU
LE1 CLK11 CLK21
DU18 DU19
LE2 CLK11 CLK21
DU16 DU17
LE3 CLK12 CLK22
IC7102
BUFFER
CLOCK
OE
IC7104
BUFFER
IC7105
BUFFER
IC7106
BUFFER
C10
CLK2
CLK3
LEU
DRV_RST
CLRU,ODEU
DU16,DU17
DU18,DU19
DU20,DU21
5V
5V_DET
P5V
C11
78V_R
Vda75V

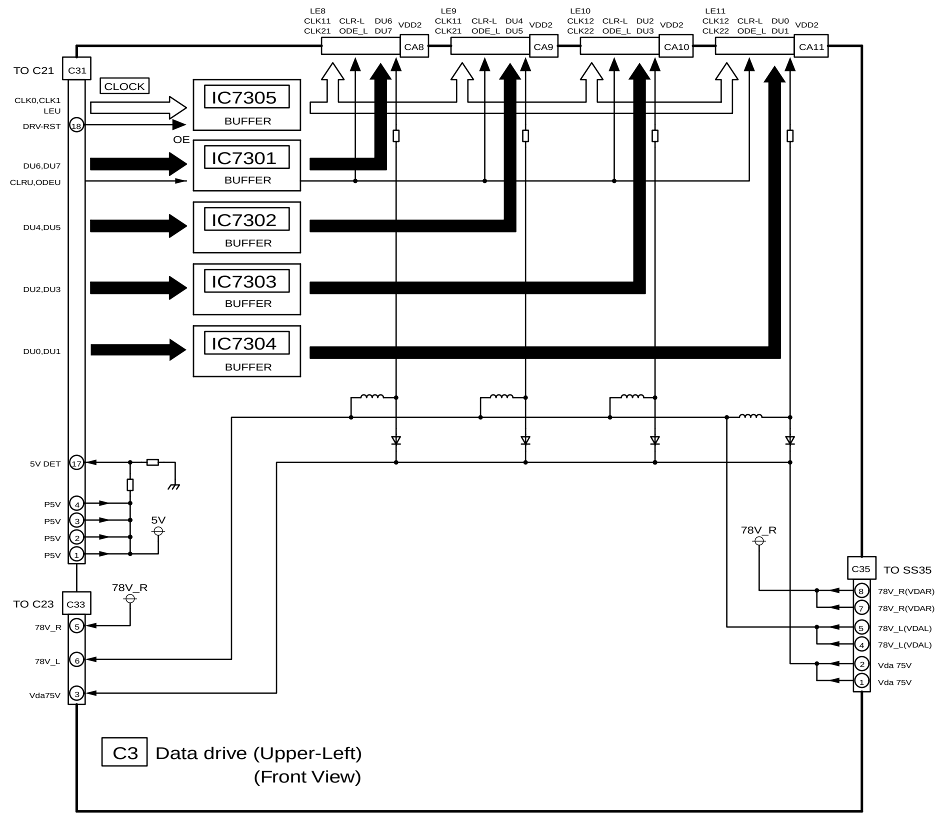

C2
Data drive
(Up-Center)
(Front View)
C20
CA4
CA5
CA6
CA7
C21
TO C31
VDD2
DU14 DU15
ODE-R CLR-R
LE4 CLKR1 CLKR2
DU12 DU13
LE5 CLKR1 CLKR2
DU10 DU11
ODE-L CLR-L
LE6 CLKL1 CLKL2
DU8 DU9
LE7 CLKL1 CLKL2
IC7202
BUFFER
IC7201
BUFFER
OE
IC7203
BUFFER
IC7204
BUFFER
IC7205
BUFFER
CLOCK
78VR
VDA75V
CLK0,CLK1
LEU
DRV_RST
DU6,DU7
CLRU,ODEU
DU4,DU5
DU2,DU3
DU0,DU1
5V_DET
5V
P5V
C22
78V_R
VDA75V
C23
TO C33
78V_L
Vda75V
C24
TO D31
C25
TO D32
DU20,DU21
DU19
ODEU,CLRU
DRV_RST
V_DET
CLK3
CLK2
LEU
DU14,DU15
DU12,DU13
DU10,DU11
DU8,DU9
P5V
DU18
DU16,DU17
LEU
CLK0
CLK1
ODEU,CLRU
DRV_RST
5V_DET
DU6,DU7
DU4,DU5
DU2,DU3
DU0,DU1

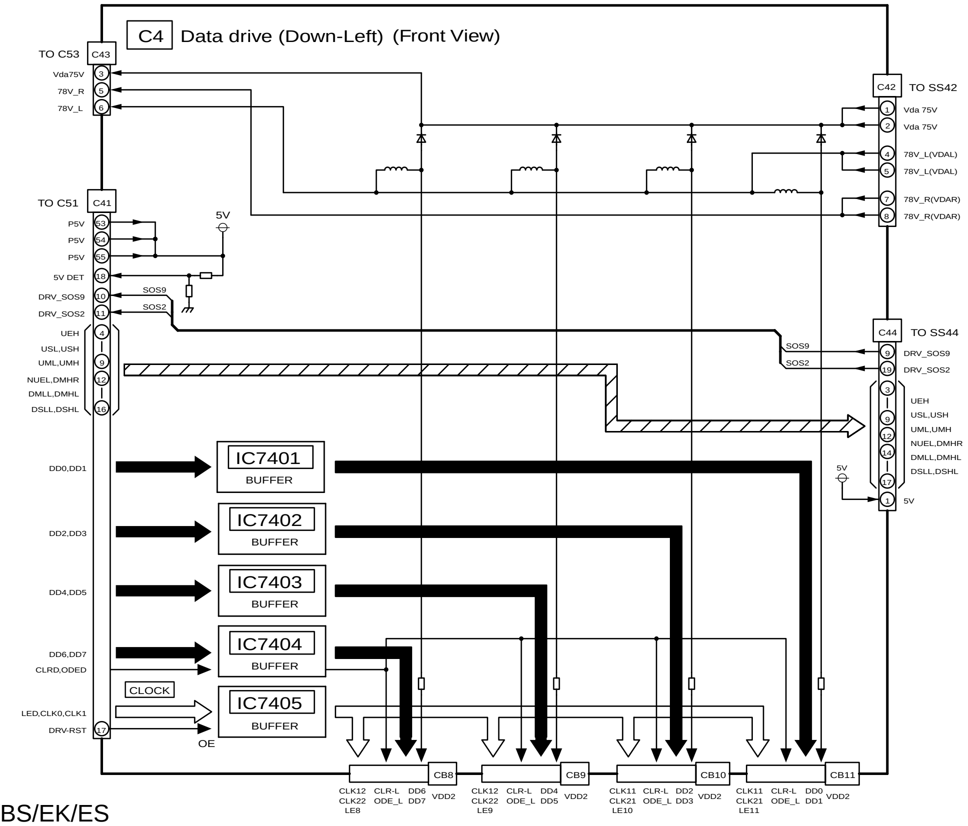

C6
Data drive (Down-Right)
(Front View)
C61
Vda75V
78V_R
5V
C60
P5V
5V DET
IC7602
BUFFER
IC7603
BUFFER
IC7604
BUFFER
IC7606
BUFFER
OE
CLOCK
DD20,DD21
DD18,DD19
CLRD,ODED
DD16,DD17
DRV_RST
CLK2
CLK3
LED
CB1
CB2
CB3
VDD2
DD20 DD21
ODED CLRD
CLK11 CLK21 LE1
DD18 DD19
CLK11 CLK21 LE2
DD16 DD17
CLK12 CLK22 LE3


C5
Data drive
(Down-Center)
(Front View)
TO D34
C54
TO D33
C55
P5V
5V_DET
DD20,DD21
DD18,DD19
DD16,DD17
CLK3
CLK2
LED
CLRD,ODEU
DD14,DD15
DD12,DD13
DD10,DD11
DRV_RST
DSHL
DSLL
DMHL
DMLL
DMHR
DD8,DD9
DRV_RST
LED
CLK1
CLK0
DD6,DD7
DD4,DD5
DD2,DD3
DD0,DD1
CLRD,ODEU
NUEL
UML
USH
USL
UEH
5V DET
DRV_SOS2
DRV_SOS9
C52
VDA75V
5V
78VR
C50
C53
TO C43
Vda75V
78V_R
78V_L
C51
TO C41
P5V
5V DET
DRV_SOS9
DRV_SOS2
5V_DET
SOS9
SOS2
UEH
USL,USH
UML,UMH
NUEL,DMHR
DMLL,DMHL
DSLL,DSHL
CLOCK
OE
IC7502
BUFFER
IC7501
BUFFER
IC7503
BUFFER
IC7504
BUFFER
IC7505
BUFFER
DD0,DD1
DD2,DD3
DD4,DD5
DD6,DD7
CLRD,ODED
CLK0,CLK1,LED
DRV_RST
CB4
CB5
CB6
CB7
VDD2
DD14 DD15
CLR-L ODE_L
CLKR1 CLKR2 LE4
DD12 DD13
CLKR1 CLKR2 LE5
DD10 DD11
CLKL1 CLKL2 LE6
DD8 DD9
CLKL1 CLKL2 LE7

TH-50PHD8BK/BS/EK/ES
C1, C2, C5 and C6-Board Block Diagram

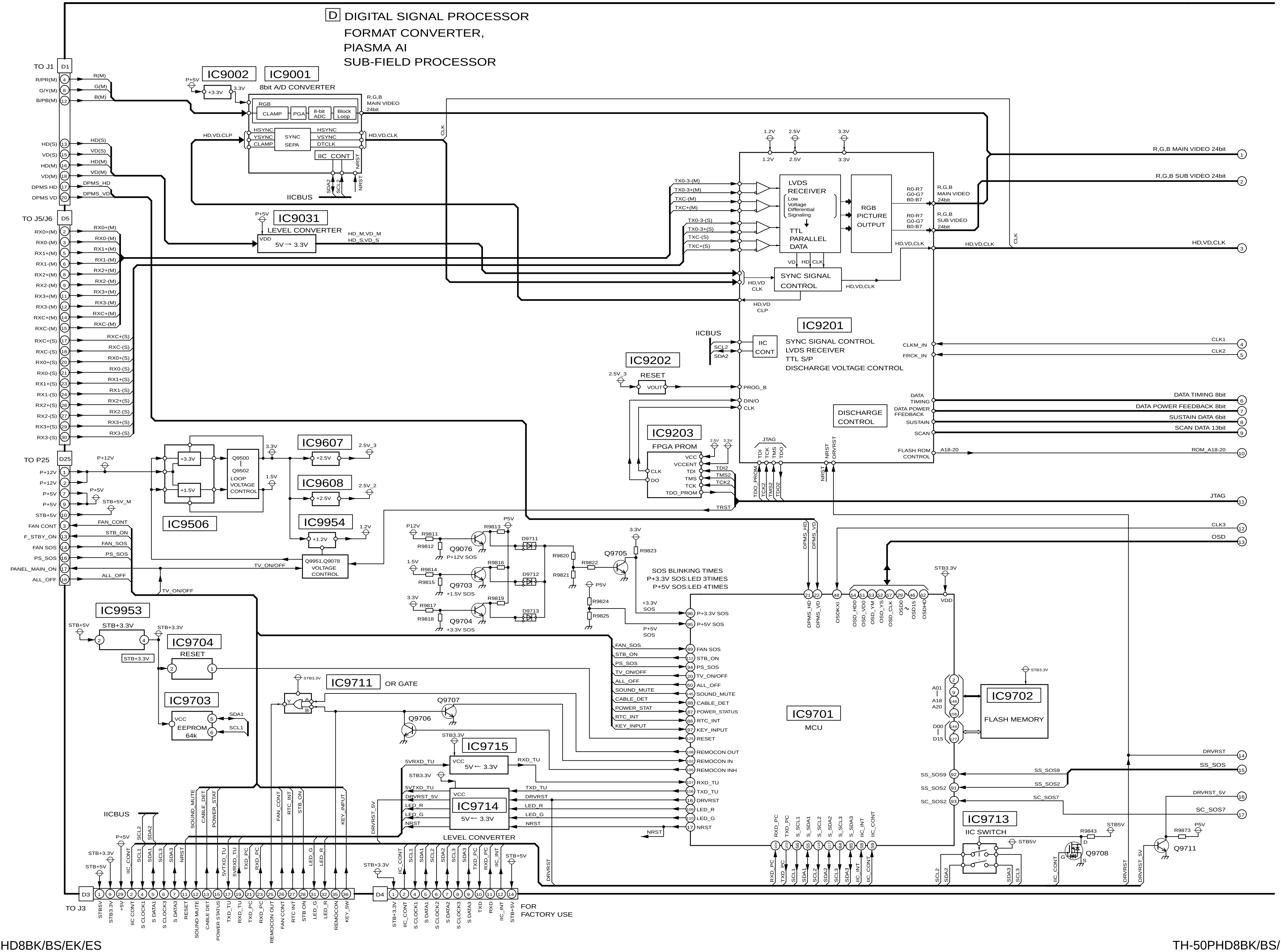
TH-50PHD8BK/BS/EK/ES
C1, C2, C5 and C6-Board Block Diagram


LE8
CLK11
CLK21
CLR-L
ODE_L
DU6
DU7
VDD2
CA8
LE9
CLK11
CLK21
CLR-L
ODE_L
DU4
DU5
VDD2
CA9
LE10
CLK12
CLK22
CLR-L
ODE_L
DU2
DU3
VDD2
CA10
LE11
CLK12
CLK22
CLR-L
ODE_L
DU0
DU1
VDD2
CA11
TO C21
C31
CLOCK
CLK0,CLK1
LEU
DRV-RST
18
IC7305
BUFFER
OE
DU6,DU7
CLRU,ODEU
IC7301
BUFFER
DU4,DU5
IC7302
BUFFER
DU2,DU3
IC7303
BUFFER
DU0,DU1
IC7304
BUFFER
5V DET
17
P5V
P5V
P5V
P5V
4
3
2
1
5V
78V_R
C35
TO SS35
8
78V_R(VDAR)
7
78V_R(VDAR)
5
78V_L(VDAL)
4
78V_L(VDAL)
2
Vda 75V
1
Vda 75V
TO C23
C33
78V_R
78V_R
5
78V_L
6
Vda75V
3
C3
Data drive (Upper-Left)
(Front View)


C4
Data drive (Down-Left) (Front View)
TO C53
C43
Vda75V
3
78V_R
5
78V_L
6
C42
TO SS42
1
Vda 75V
2
Vda 75V
4
78V_L(VDAL)
5
78V_L(VDAL)
7
78V_R(VDAR)
8
78V_R(VDAR)
TO C51
C41
P5V
63
P5V
64
P5V
65
5V DET
18
5V
DRV_SOS9
10
DRV_SOS2
11
SOS9
SOS2
UEH
4
USL,USH
9
UML,UMH
12
NUEL,DMHR
DMLL,DMHL
DSLL,DSHL
16
C44
TO SS44
SOS9
SOS2
9
DRV_SOS9
19
DRV_SOS2
3
UEH
9
USL,USH
UML,UMH
12
NUEL,DMHR
14
DMLL,DMHL
DSLL,DSHL
17
5V
1
5V
DD0,DD1
IC7401
BUFFER
DD2,DD3
IC7402
BUFFER
DD4,DD5
IC7403
BUFFER
DD6,DD7
CLRD,ODED
IC7404
BUFFER
CLOCK
LED,CLK0,CLK1
DRV-RST
17
IC7405
BUFFER
OE
CB8
CLK12
CLK22
LE8
CLR-L
ODE_L
DD6
DD7
VDD2
CB9
CLK12
CLK22
LE9
CLR-L
ODE_L
DD4
DD5
VDD2
CB10
CLK11
CLK21
LE10
CLR-L
ODE_L
DD2
DD3
VDD2
CB11
CLK11
CLK21
LE11
CLR-L
ODE_L
DD0
DD1
VDD2

TH-50PHD8BK/BS/EK/ES
C3 and C4-Board Block Diagram

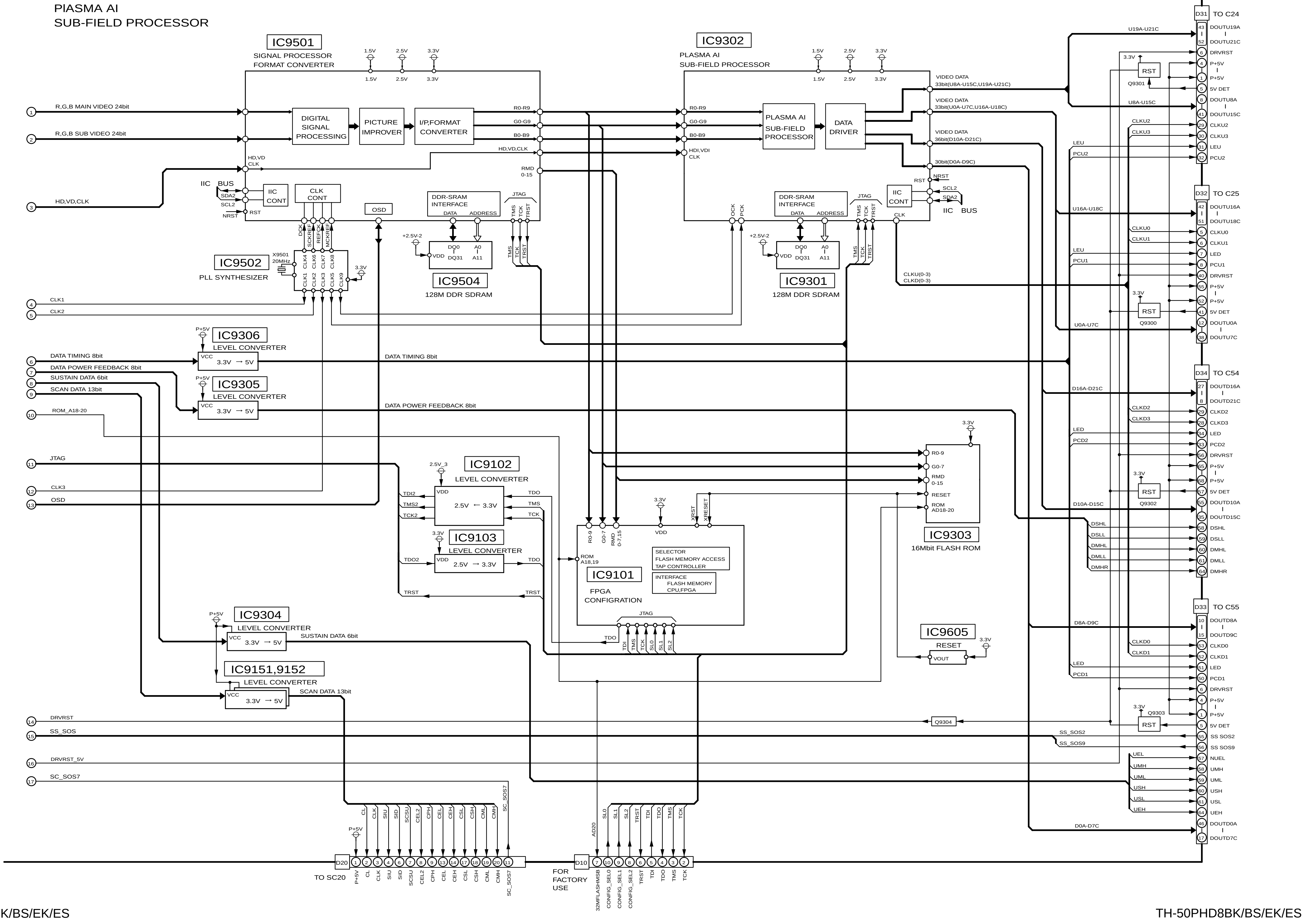
TH-50PHD8BK/BS/EK/ES
C3 and C4-Board Block Diagram


D DIGITAL SIGNAL PROCESSOR
FORMAT CONVERTER,
PIASMA AI
SUB-FIELD PROCESSOR
TO J1
D1
R/PR(M)
G/Y(M)
B/PB(M)
HD(S)
VD(S)
HD(M)
VD(M)
DPMS HD
DPMS VD
IC9002
IC9001
8bit A/D CONVERTER
+3.3V
P+5V
3.3V
RGB
CLAMP
PGA
8-bit ADC
Block Loop
R,G,B MAIN VIDEO 24bit
HSYNC
VSYNC
CLAMP
SYNC SEPA
DTCLK
IIC_CONT
NRST
HD,VD,CLP
HD,VD,CLK
IICBUS
SDA2
SCL2
CLK
TO J5/J6
D5
RX0+(M)
RX0-(M)
RX1+(M)
RX1-(M)
RX2+(M)
RX2-(M)
RX3+(M)
RX3-(M)
RXC+(M)
RXC-(M)
RXC+(S)
RXC-(S)
RX0+(S)
RX0-(S)
RX1+(S)
RX1-(S)
RX2+(S)
RX2-(S)
RX3+(S)
RX3-(S)
IC9031
LEVEL CONVERTER
VDD
5V → 3.3V
HD_M,VD_M
HD_S,VD_S
1.2V
2.5V
3.3V
TX0-3-(M)
TX0-3+(M)
TXC-(M)
TXC+(M)
TX0-3-(S)
TX0-3+(S)
TXC-(S)
TXC+(S)
LVDS RECEIVER
Low Voltage Differential Signaling
TTL PARALLEL DATA
RGB PICTURE OUTPUT
R0-R7
G0-G7
B0-B7
R,G,B MAIN VIDEO 24bit
R,G,B SUB VIDEO 24bit
R,G,B SUB VIDEO
HD,VD,CLK
VD HD CLK
SYNC SIGNAL CONTROL
HD,VD CLK
HD,VD CLP
IC9201
SYNC SIGNAL CONTROL
LVDS RECEIVER
TTL S/P
DISCHARGE VOLTAGE CONTROL
IIC CONT
CLKM_IN
FRCK_IN
CLK1
CLK2
IC9202
RESET
2.5V_3
VOUT
PROG_B
DIN/O
CLK
DATA TIMING
DATA POWER FFEEDBACK
SUSTAIN
SCAN
DISCHARGE CONTROL
DATA TIMING 8bit
DATA POWER FEEDBACK 8bit
SUSTAIN DATA 6bit
SCAN DATA 13bit
FLASH ROM CONTROL
A18-20
ROM_A18-20
IC9203
FPGA PROM
VCC
VCCENT
TDI
TMS
TCK
DO
TDO_PROM
TDI2
TMS2
TCK2
JTAG
TDI TCK TMS TDO
TDO_PROM TCK2 TMS2 TDO2
NRST DRVRST
TRST
TO P25
D25
P+12V
P+5V
STB+5V
FAN CONT
F_STBY_ON
FAN SOS
PS_SOS
PANEL_MAIN_ON
ALL_OFF
STB+5V_M
FAN_CONT
STB_ON
FAN_SOS
PS_SOS
ALL_OFF
TV_ON/OFF
+3.3V
+1.5V
Q9500 Q9502 LOOP VOLTAGE CONTROL
1.5V
IC9506
IC9607
+2.5V
2.5V_3
IC9608
2.5V_2
IC9954
+1.2V
Q9951,Q9078 VOLTAGE CONTROL
P12V
R9811
R9812
Q9076
P+12V SOS
R9813
P5V
D9711
R9814
R9815
Q9703
+1.5V SOS
R9816
D9712
R9817
R9818
Q9704
+3.3V SOS
R9819
D9713
R9820
R9821
R9822
Q9705
R9823
R9824
R9825
SOS BLINKING TIMES
P+3.3V SOS:LED 3TIMES
P+5V SOS:LED 4TIMES
+3.3V SOS
P+5V SOS
DPMS_HD
DPMS_VD
OSDKXI
OSD_HD0
OSD_VD0
OSD_YM
OSD_YS
OSD_CLK
OSD0 ~ OSD15
OSDHD
STB3.3V
VDD
CLK3
OSD
IC9953
STB+3.3V
IC9704
RESET
IC9703
VCC
EEPROM 64k
SDA1
SCL1
IC9711
OR GATE
Q9707
Q9706
IC9715
5VRXD_TU
5V ← 3.3V
RXD_TU
IC9714
5VTXD_TU
DRVRST_5V
LED_R
LED_G
NRST
TXD_TU
DRVRST
LEVEL CONVERTER
FAN SOS
STB_ON
PS_SOS
TV_ON/OFF
ALL_OFF
SOUND_MUTE
CABLE_DET
POWER_STATUS
POWER_STAT
RTC_INT
KEY_INPUT
REMOCON OUT
REMOCON IN
REMOCON INH
RXD_TU
TXD_TU
LED_R
LED_G
IC9701
MCU
IC9702
FLASH MEMORY
A01 A18 A20
D00 D15
DRVRST
SS_SOS
SS_SOS9
SS_SOS2
SC_SOS2
SC_SOS7
DRVRST_5V
SC_SOS7
IC9713
IIC SWITCH
STB5V
R9843
Q9708
R9873
Q9711
RXD_PC TXD_PC S_SCL1 S_SDA1 S_SCL2 S_SDA2 S_SCL3 S_SDA3 IIC_INT IIC_CONT
IICBUS
TO J3
D3
STB5V STB3.3V +5V IIC_CONT S CLOCK1 S DATA1 S CLOCK3 S DATA3 RESET SOUND MUTE CABLE DET POWER STATUS TXD_TU RXD_TU TXD_PC RXD_PC REMOCON OUT FAN CONT RTC INT STB ON LED_G LED_R REMOCON KEY_SW
D4
STB+3.3V IIC_CONT S CLOCK1 S DATA1 S CLOCK2 S DATA2 S CLOCK3 S DATA3 TXD RXD IIC_INT STB+5V
FOR FACTORY USE

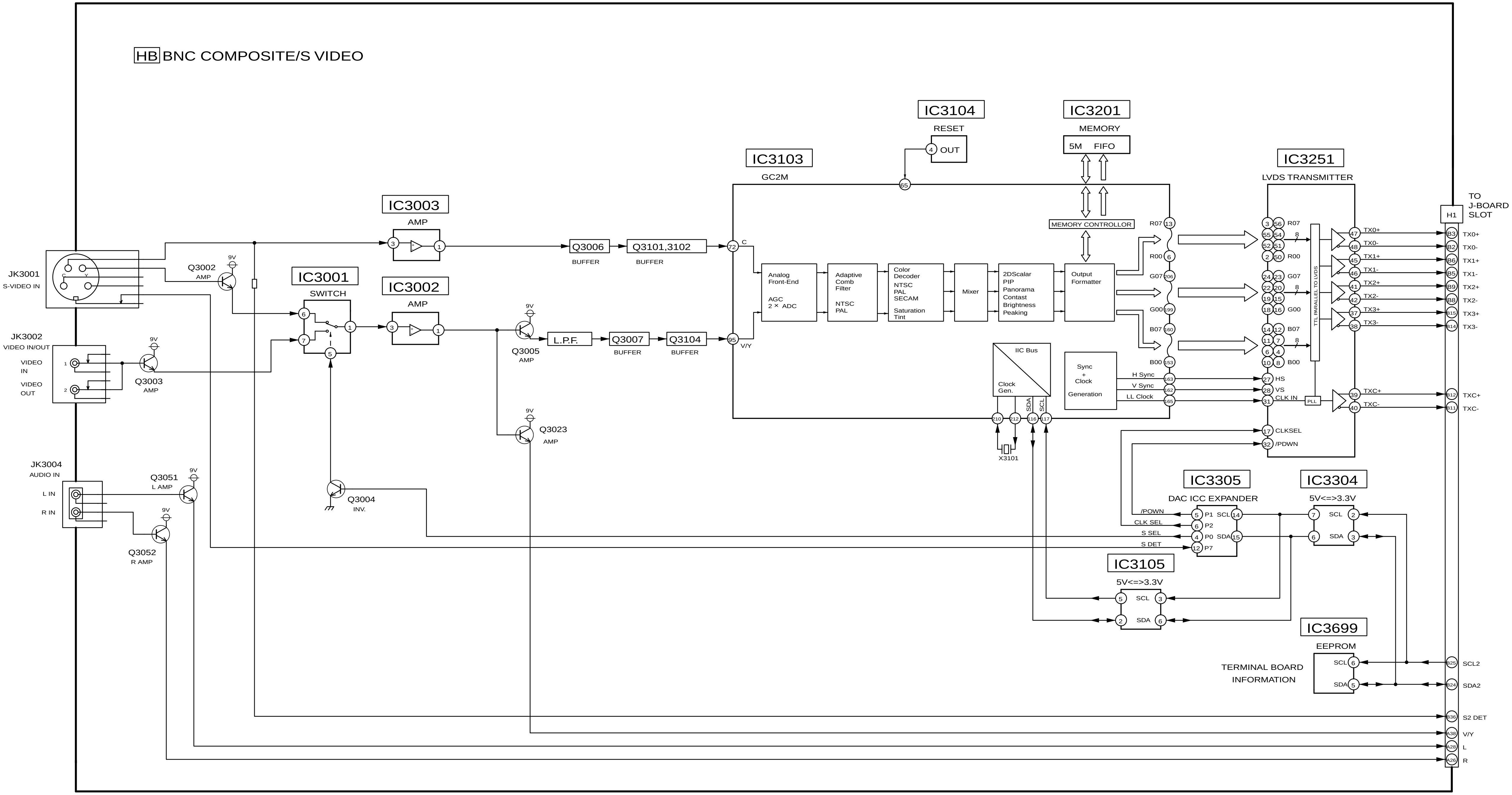
TH-50PHD8BK/BS/EK/ES
D-Board (1 of 2) Block Diagram

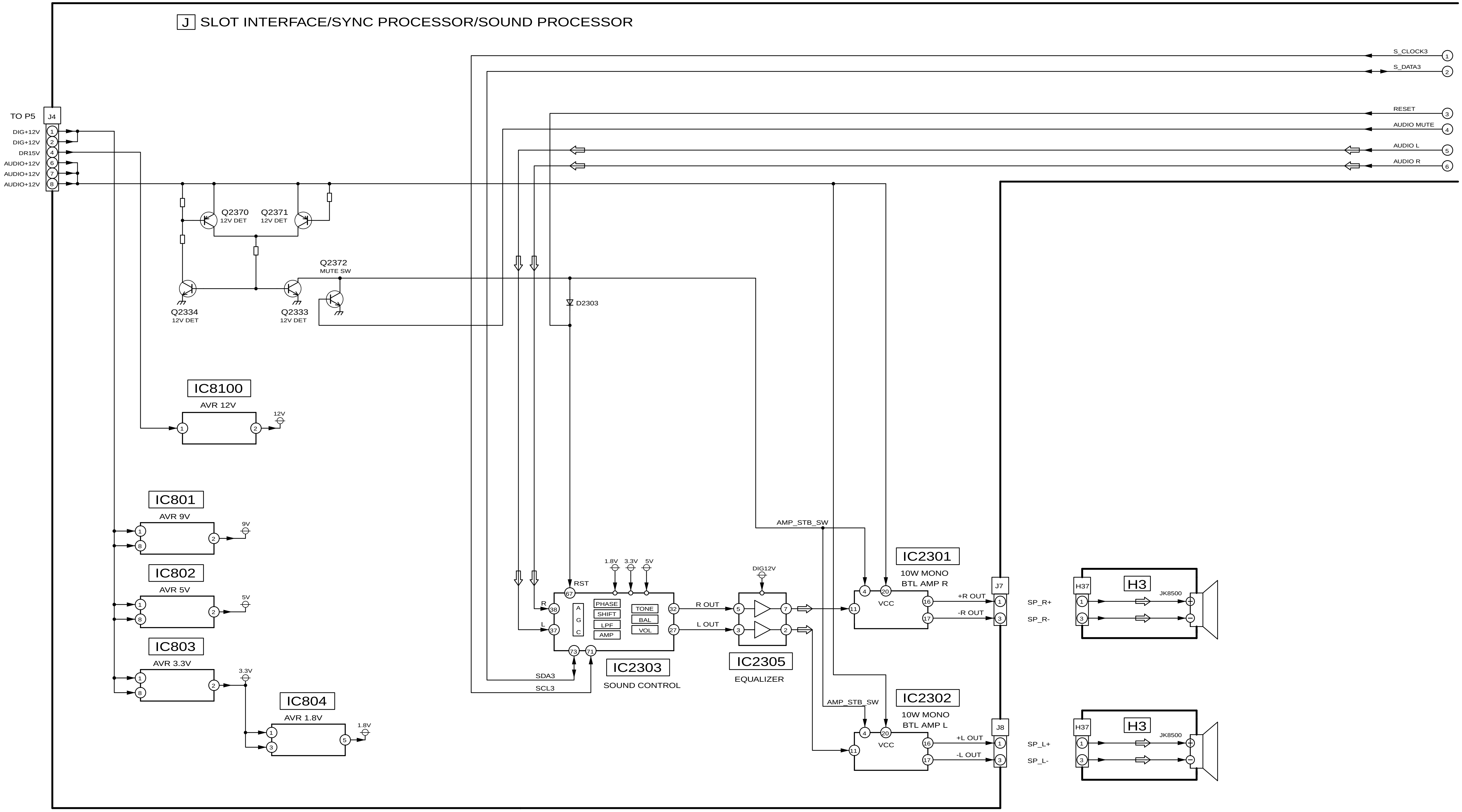
TH-50PHD8BK/BS/EK/ES
D-Board (1 of 2) Block Diagram

D DIGITAL SIGNAL PROCESSOR
FORMAT CONVERTER, PIASMA AI SUB-FIELD PROCESSOR


IC9501
SIGNAL PROCESSOR FORMAT CONVERTER
DIGITAL SIGNAL PROCESSING
PICTURE IMPROVER
I/P,FORMAT CONVERTER
IC9302
PLASMA AI SUB-FIELD PROCESSOR
PLASMA AI SUB-FIELD PROCESSOR
DATA DRIVER
IC9502
PLL SYNTHESIZER
X9501 20MHz
CLK CONT
IIC CONT
IIC BUS
SDA2
SCL2
NRST
RST
OSD
DDR-SRAM INTERFACE
DATA
ADDRESS
JTAG
TMS
TCK
TRST
IC9504
128M DDR SDRAM
IC9301
128M DDR SDRAM
DQ0 DQ31
A0 A11
VDD
+2.5V-2
1.5V
2.5V
3.3V
R,G,B MAIN VIDEO 24bit
R,G,B SUB VIDEO 24bit
HD,VD,CLK
R0-R9
G0-G9
B0-B9
HD,VD,CLK
RMD 0-15
HDI,VDI CLK
OCK
PCK
VIDEO DATA 33bit(U8A-U15C,U19A-U21C)
VIDEO DATA 33bit(U0A-U7C,U16A-U18C)
VIDEO DATA 36bit(D10A-D21C)
30bit(D0A-D9C)
CLKU(0-3)
CLKD(0-3)
CLK1
CLK2
CLK3
DATA TIMING 8bit
DATA POWER FEEDBACK 8bit
SUSTAIN DATA 6bit
SCAN DATA 13bit
ROM_A18-20
JTAG
OSD
DRVRST
SS_SOS
DRVRST_5V
SC_SOS7
IC9306
LEVEL CONVERTER
IC9305
LEVEL CONVERTER
VCC 3.3V → 5V
P+5V
IC9102
LEVEL CONVERTER
2.5V ← 3.3V
IC9103
LEVEL CONVERTER
2.5V → 3.3V
2.5V_3
TDI2
TMS2
TCK2
TDO2
TDO
TMS
TCK
TRST
IC9101
FPGA CONFIGRATION
ROM A18,19
R0-9
G0-7
RMD 0-7,15
VDD
XRST
XRESET
SELECTOR
FLASH MEMORY ACCESS
TAP CONTROLLER
INTERFACE
FLASH MEMORY
CPU,FPGA
TDI TMS TCK SL0 SL1 SL2
IC9303
16Mbit FLASH ROM
R0-9
G0-7
RMD 0-15
RESET
ROM AD18-20
IC9605
RESET
VOUT
Q9304
IC9304
LEVEL CONVERTER
IC9151,9152
LEVEL CONVERTER
D20
TO SC20
P+5V CL CLK SIU SID SCSU CEL2 CPH CEL CEH CSL CSH CML CMH SC_SOS7
D10
FOR FACTORY USE
AD20 SL0 SL1 SL2 TRST TDI TDO TMS TCK
32MFLASHMSB CONFIG_SEL0 CONFIG_SEL1 CONFIG_SEL2 TRST TDI TDO TMS TCK
D31 TO C24
DOUTU19A – DOUTU21C
DRVRST
P+5V
5V DET
DOUTU8A – DOUTU15C
CLKU2
CLKU3
LEU
PCU2
RST
Q9301
D32 TO C25
DOUTU16A – DOUTU18C
CLKU0
CLKU1
LED
PCU1
Q9300
DOUTU0A – DOUTU7C
D34 TO C54
DOUTD16A – DOUTD21C
CLKD2
CLKD3
PCD2
Q9302
DOUTD10A – DOUTD15C
DSHL
DSLL
DMHL
DMLL
DMHR
D33 TO C55
DOUTD8A – DOUTD9C
CLKD0
CLKD1
PCD1
Q9303
SS SOS2
SS SOS9
NUEL
UMH
UML
USH
USL
UEH
DOUTD0A – DOUTD7C
U19A-U21C
U8A-U15C
U16A-U18C
U0A-U7C
D16A-D21C
D10A-D15C
D8A-D9C
D0A-D7C

TH-50PHD8BK/BS/EK/ES
D-Board (2 of 2) Block Diagram

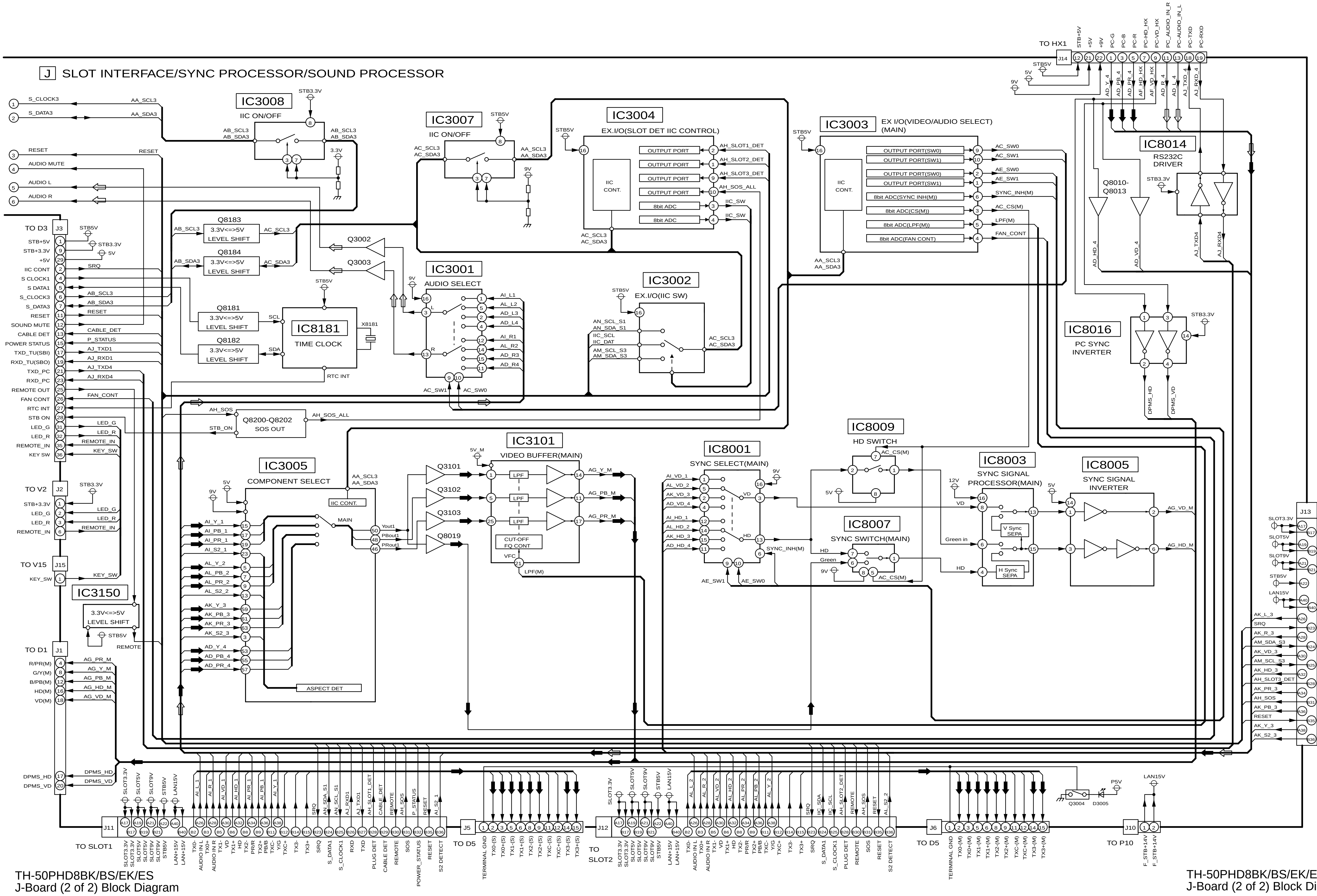

HB BNC COMPOSITE/S VIDEO
JK3001
S-VIDEO IN
C
Y
JK3002
VIDEO IN/OUT
VIDEO IN
VIDEO OUT
1
2
JK3004
AUDIO IN
L IN
R IN
Q3002
AMP
Q3003
AMP
Q3051
L AMP
Q3052
R AMP
9V
IC3001
SWITCH
IC3003
AMP
IC3002
AMP
Q3004
INV.
Q3005
AMP
Q3023
AMP
L.P.F.
Q3006
BUFFER
Q3101,3102
BUFFER
Q3007
BUFFER
Q3104
BUFFER
IC3103
GC2M
C
V/Y
Analog Front-End
AGC
2 × ADC
Adaptive Comb Filter
NTSC
PAL
Color Decoder
NTSC
PAL
SECAM
Saturation
Tint
Mixer
2DScalar
PIP
Panorama
Contast
Brightness
Peaking
Output Formatter
IIC Bus
Clock Gen.
SDA
SCL
Sync + Clock Generation
H Sync
V Sync
LL Clock
X3101
IC3104
RESET
OUT
IC3201
MEMORY
5M FIFO
MEMORY CONTROLLOR
R07
R00
G07
G00
B07
B00
IC3251
LVDS TRANSMITTER
TTL PARALLEL TO LVDS
PLL
HS
VS
CLK IN
CLKSEL
/PDWN
TX0+
TX0-
TX1+
TX1-
TX2+
TX2-
TX3+
TX3-
TXC+
TXC-
H1
TO J-BOARD SLOT
IC3305
DAC ICC EXPANDER
/POWN
CLK SEL
S SEL
S DET
P1
P2
P0
P7
SCL
SDA
IC3304
5V<=>3.3V
IC3105
5V<=>3.3V
IC3699
EEPROM
TERMINAL BOARD INFORMATION
SCL2
SDA2
S2 DET
V/Y
L
R
B3
B2
B6
B5
B9
B8
B15
B14
B12
B11
B25
B24
A36
A38
A28
A26


J
SLOT INTERFACE/SYNC PROCESSOR/SOUND PROCESSOR
TO P5
J4
DIG+12V
DIG+12V
DR15V
AUDIO+12V
AUDIO+12V
AUDIO+12V
S_CLOCK3
S_DATA3
RESET
AUDIO MUTE
AUDIO L
AUDIO R
Q2370
12V DET
Q2371
12V DET
Q2372
MUTE SW
Q2334
12V DET
Q2333
12V DET
D2303
IC8100
AVR 12V
12V
IC801
AVR 9V
9V
IC802
AVR 5V
5V
IC803
AVR 3.3V
3.3V
IC804
AVR 1.8V
1.8V
1.8V
3.3V
5V
RST
R
L
AGC
PHASE
SHIFT
LPF
AMP
TONE
BAL
VOL
R OUT
L OUT
SDA3
SCL3
IC2303
SOUND CONTROL
DIG12V
IC2305
EQUALIZER
AMP_STB_SW
IC2301
10W MONO
BTL AMP R
VCC
+R OUT
-R OUT
AMP_STB_SW
IC2302
10W MONO
BTL AMP L
VCC
+L OUT
-L OUT
J7
J8
SP_R+
SP_R-
SP_L+
SP_L-
H37
H3
JK8500
H37
H3
JK8500

TH-50PHD8BK/BS/EK/ES
J-Board (1 of 2) and H3-Board Block Diagram

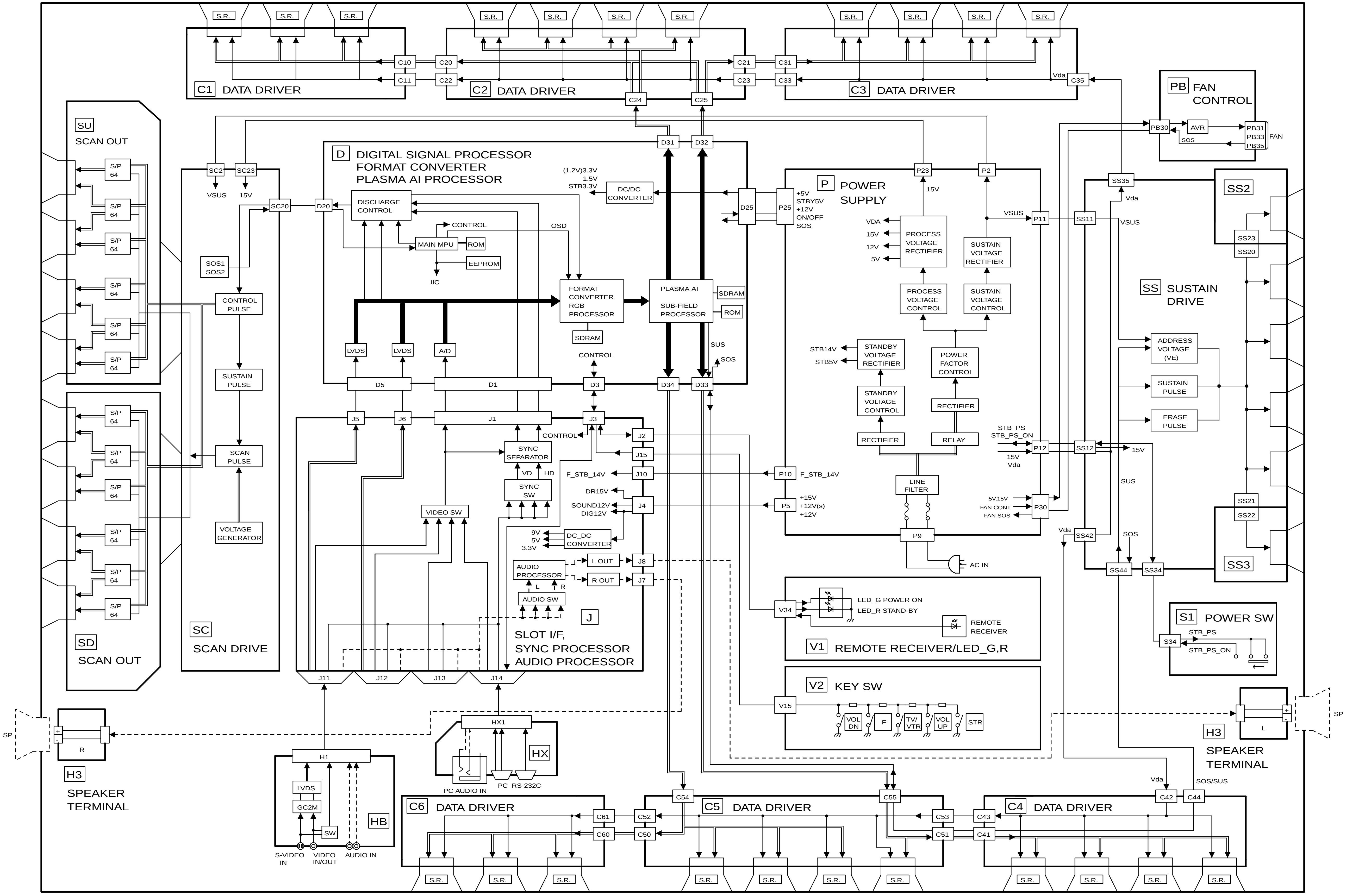
TH-50PHD8BK/BS/EK/ES
J-Board (1 of 2) and H3-Board Block Diagram

J SLOT INTERFACE/SYNC PROCESSOR/SOUND PROCESSOR


IC3008
IIC ON/OFF
IC3007
IIC ON/OFF
IC3004
EX.I/O(SLOT DET IIC CONTROL)
OUTPUT PORT
8bit ADC
IIC CONT.
IC3003
EX I/O(VIDEO/AUDIO SELECT) (MAIN)
OUTPUT PORT(SW0)
OUTPUT PORT(SW1)
8bit ADC(SYNC INH(M))
8bit ADC(CS(M))
8bit ADC(LPF(M))
8bit ADC(FAN CONT)
IC8014
RS232C DRIVER
Q8010-Q8013
Q8183
3.3V<=>5V LEVEL SHIFT
Q8184
Q8181
Q8182
Q3002
Q3003
IC8181
TIME CLOCK
X8181
RTC INT
IC3001
AUDIO SELECT
IC3002
EX.I/O(IIC SW)
IC8016
PC SYNC INVERTER
Q8200-Q8202
SOS OUT
AH_SOS_ALL
IC3005
COMPONENT SELECT
IIC CONT.
ASPECT DET
IC3101
VIDEO BUFFER(MAIN)
Q3101
Q3102
Q3103
Q8019
LPF
CUT-OFF FQ CONT
IC8001
SYNC SELECT(MAIN)
IC8009
HD SWITCH
IC8007
SYNC SWITCH(MAIN)
IC8003
SYNC SIGNAL PROCESSOR(MAIN)
V Sync SEPA
H Sync SEPA
IC8005
SYNC SIGNAL INVERTER
IC3150
3.3V<=>5V LEVEL SHIFT
TO HX1
J14
TO D3
J3
TO V2
J2
TO V15
J15
TO D1
J1
J13
TO SLOT3
J11
TO SLOT1
J5
TO D5
J12
TO SLOT2
J6
TO D5
J10
TO P10
Q3004
D3005
S_CLOCK3
S_DATA3
RESET
AUDIO MUTE
AUDIO L
AUDIO R
STB+5V
STB+3.3V
+5V
IIC CONT
S CLOCK1
S DATA1
S_CLOCK3
S_DATA3
SOUND MUTE
CABLE DET
POWER STATUS
TXD_TU(SBI)
RXD_TU(SBO)
TXD_PC
RXD_PC
REMOTE OUT
FAN CONT
RTC INT
STB ON
LED_G
LED_R
REMOTE_IN
KEY SW
R/PR(M)
G/Y(M)
B/PB(M)
HD(M)
VD(M)
DPMS_HD
DPMS_VD
SLOT3.3V
SLOT5V
SLOT9V
STB5V
LAN+15V
AUDIO IN L
SRQ
AUDIO IN R
IIC_DATA
VD
IIC_CLOCK
HD
PLUG DET
PR/R
SOS
PB/B
RESET
Y/G
S2 DETECT
TERMINAL GND
F_STB+14V

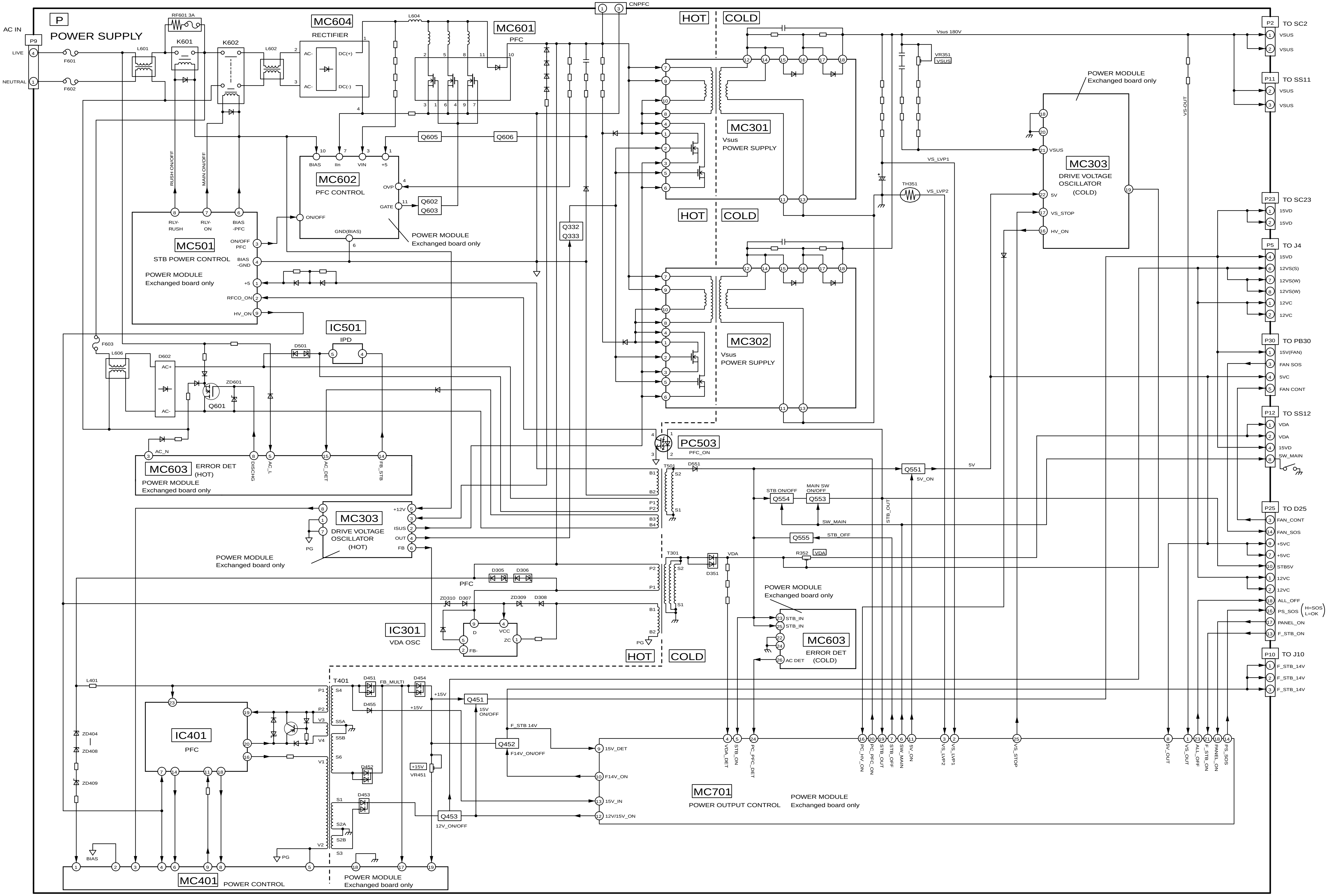
TH-50PHD8BK/BS/EK/ES
J-Board (2 of 2) Block Diagram

TH-50PHD8BK/BS/EK/ES
J-Board (2 of 2) Block Diagram


S.R.
C1 DATA DRIVER
C10
C11
C2 DATA DRIVER
C20
C22
C21
C23
C24
C25
C3 DATA DRIVER
C31
C33
C35
Vda
PB FAN CONTROL
PB30
AVR
SOS
PB31
PB33
PB35
FAN
SU SCAN OUT
S/P 64
SD SCAN OUT
SC SCAN DRIVE
SC2
SC23
VSUS
15V
SC20
SOS1
SOS2
CONTROL PULSE
SUSTAIN PULSE
SCAN PULSE
VOLTAGE GENERATOR
D DIGITAL SIGNAL PROCESSOR FORMAT CONVERTER PLASMA AI PROCESSOR
D20
D31
D32
D25
DISCHARGE CONTROL
CONTROL
MAIN MPU
ROM
EEPROM
IIC
OSD
(1.2V)3.3V
1.5V
STB3.3V
DC/DC CONVERTER
FORMAT CONVERTER RGB PROCESSOR
SDRAM
PLASMA AI
SUB-FIELD PROCESSOR
ROM
SUS
SOS
LVDS
A/D
D5
D1
D3
D34
D33
P POWER SUPPLY
P25
+5V
STBY5V
+12V
ON/OFF
SOS
P23
P2
VDA
15V
12V
5V
PROCESS VOLTAGE RECTIFIER
SUSTAIN VOLTAGE RECTIFIER
PROCESS VOLTAGE CONTROL
SUSTAIN VOLTAGE CONTROL
VSUS
P11
STB14V
STB5V
STANDBY VOLTAGE RECTIFIER
STANDBY VOLTAGE CONTROL
POWER FACTOR CONTROL
RECTIFIER
RELAY
LINE FILTER
STB_PS
STB_PS_ON
P12
15V
Vda
P10
F_STB_14V
P5
+15V
+12V(s)
+12V
5V,15V
FAN CONT
FAN SOS
P30
P9
AC IN
SS35
Vda
SS2
SS23
SS20
SS11
VSUS
SS SUSTAIN DRIVE
ADDRESS VOLTAGE (VE)
SUSTAIN PULSE
ERASE PULSE
SS12
15V
SUS
SS21
SS22
SS3
SS42
SOS
SS44
SS34
J5
J6
J1
J3
CONTROL
J2
J15
J10
F_STB_14V
SYNC SEPARATOR
VD
HD
SYNC SW
DR15V
SOUND12V
DIG12V
J4
VIDEO SW
9V
5V
3.3V
DC_DC CONVERTER
AUDIO PROCESSOR
L OUT
R OUT
J8
J7
L
R
AUDIO SW
J SLOT I/F, SYNC PROCESSOR AUDIO PROCESSOR
J11
J12
J13
J14
V34
LED_G POWER ON
LED_R STAND-BY
REMOTE RECEIVER
V1 REMOTE RECEIVER/LED_G,R
V2 KEY SW
V15
VOL DN
F
TV/ VTR
VOL UP
STR
S1 POWER SW
S34
STB_PS
STB_PS_ON
SP
R
H3 SPEAKER TERMINAL
L
H1
LVDS
GC2M
SW
HB
S-VIDEO IN
VIDEO IN/OUT
AUDIO IN
HX1
HX
PC AUDIO IN
PC
RS-232C
C6 DATA DRIVER
C61
C60
C52
C50
C54
C5 DATA DRIVER
C55
C53
C51
C4 DATA DRIVER
C42
C44
C43
C41
Vda
SOS/SUS

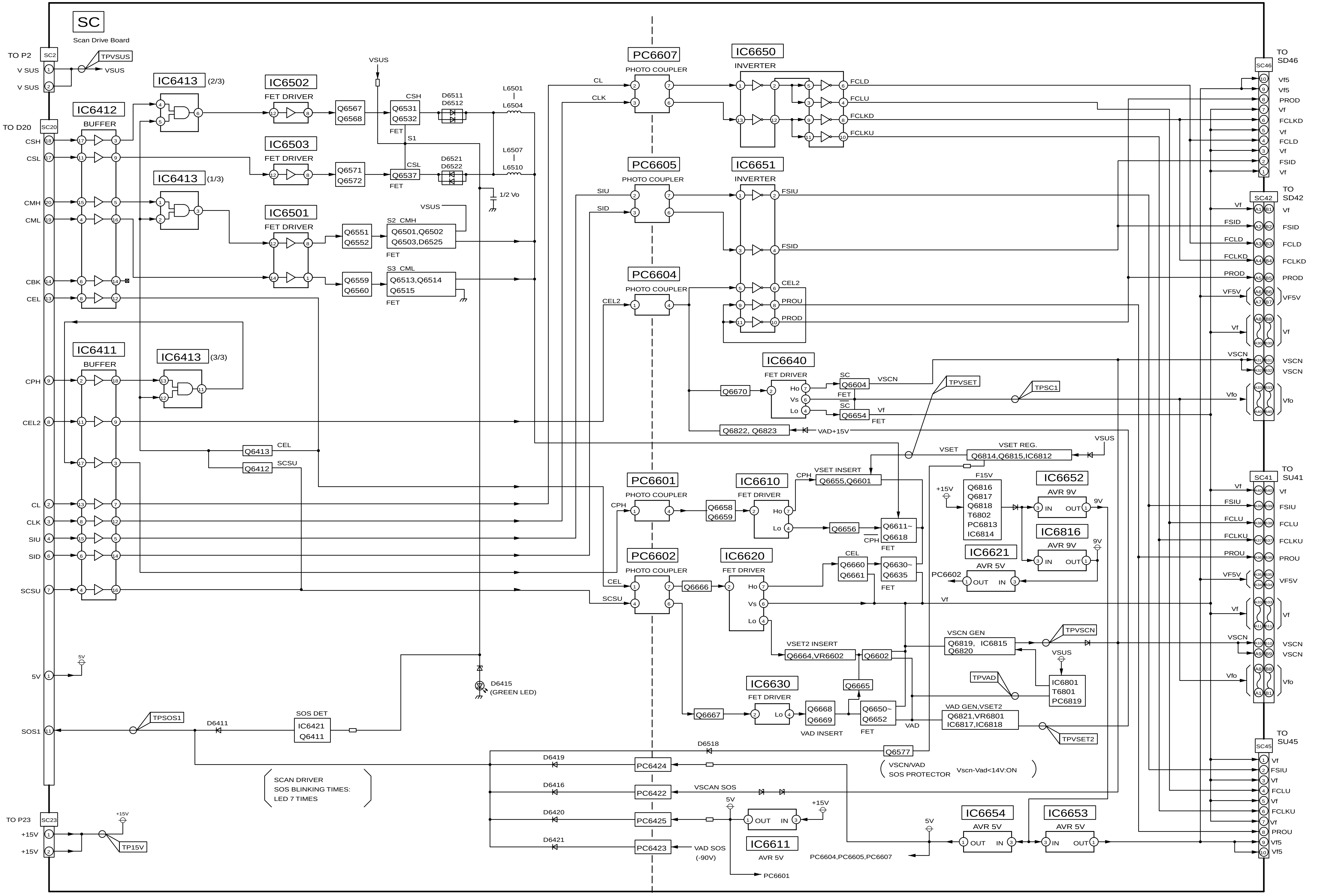
TH-50PHD8BK/BS/EK/ES
Main Block Diagram

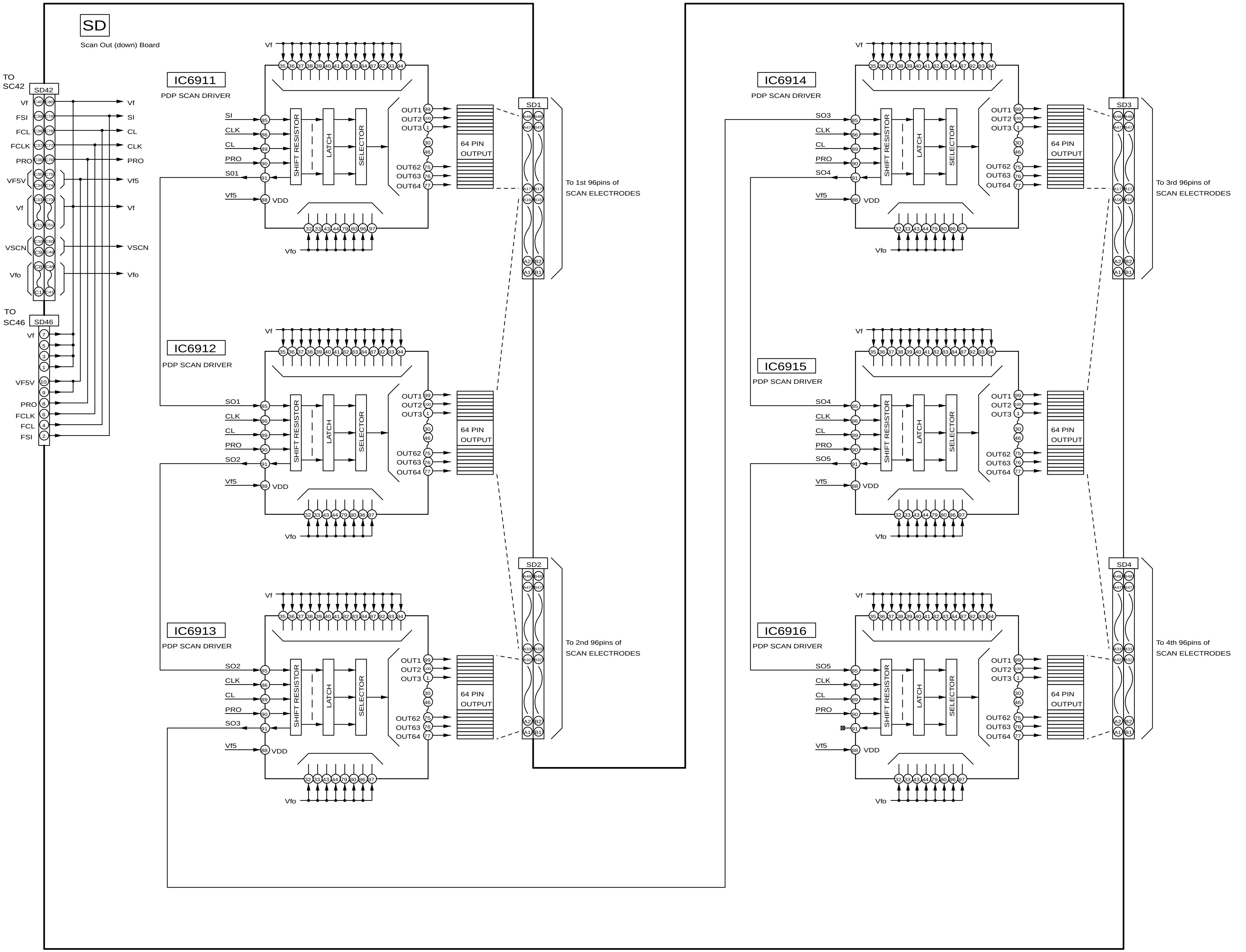
TH-50PHD8BK/BS/EK/ES
Main Block Diagram


P
POWER SUPPLY
AC IN
P9
LIVE
NEUTRAL
F601
F602
RF601 3A
K601
K602
L601
L602
MC604
RECTIFIER
AC-
AC-
DC(+)
DC(-)
L604
MC601
PFC
CNPFC
HOT
COLD
Vsus 180V
P2
TO SC2
VSUS
VSUS
P11
TO SS11
VSUS
VSUS
VR351
VSUS
POWER MODULE
Exchanged board only
MC303
DRIVE VOLTAGE
OSCILLATOR
(COLD)
VSUS
5V
VS_STOP
HV_ON
VS_OUT
VS_LVP1
VS_LVP2
TH351
Q605
Q606
MC602
PFC CONTROL
BIAS
IIn
VIN
+5
OVP
GATE
ON/OFF
GND(BIAS)
Q602
Q603
POWER MODULE
Exchanged board only
MC301
Vsus
POWER SUPPLY
MC302
Vsus
POWER SUPPLY
Q332
Q333
RUSH ON/OFF
MAIN ON/OFF
RLY-RUSH
RLY-ON
BIAS -PFC
MC501
STB POWER CONTROL
ON/OFF PFC
BIAS -GND
+5
RFCO_ON
HV_ON
POWER MODULE
Exchanged board only
IC501
IPD
D501
F603
L606
D602
AC+
AC-
ZD601
Q601
MC603
ERROR DET
(HOT)
AC_N
DISCHG
AC_L
AC_DET
FB_STB
POWER MODULE
Exchanged board only
PC503
PFC_ON
T501
D551
B1
B2
P1
P2
B3
B4
S2
S1
Q551
5V
5V_ON
STB ON/OFF
Q554
MAIN SW ON/OFF
Q553
SW_MAIN
Q555
STB_OFF
STB_OUT
T301
D351
VDA
R352
VDA
MC303
DRIVE VOLTAGE
OSCILLATOR
(HOT)
+12V
ISUS
OUT
FB
PG
POWER MODULE
Exchanged board only
PFC
D305
D306
ZD310
D307
ZD309
D308
IC301
VDA OSC
D
VCC
FB-
ZC
P2
P1
B1
B2
POWER MODULE
Exchanged board only
MC603
ERROR DET
(COLD)
STB_IN
STB_IN
AC DET
P23
TO SC23
15VD
15VD
P5
TO J4
15VD
12VS(S)
12VS(W)
12VS(W)
12VC
12VC
P30
TO PB30
15V(FAN)
FAN SOS
5VC
FAN CONT
P12
TO SS12
VDA
VDA
15VD
SW_MAIN
P25
TO D25
FAN_CONT
FAN_SOS
+5VC
+5VC
STB5V
12VC
12VC
ALL_OFF
PS_SOS
H=SOS
L=OK
PANEL_ON
F_STB_ON
P10
TO J10
F_STB_14V
F_STB_14V
F_STB_14V
L401
T401
P1
P2
V3
V4
V1
V2
S4
S5A
S5B
S6
S1
S2A
S2B
S3
D451
FB_MULTI
D454
D455
D452
D453
+15V
+15V
Q451
15V ON/OFF
F_STB 14V
Q452
F14V_ON/OFF
+15V
VR451
Q453
12V_ON/OFF
IC401
PFC
ZD404
ZD408
ZD409
BIAS
PG
MC401
POWER CONTROL
POWER MODULE
Exchanged board only
MC701
POWER OUTPUT CONTROL
POWER MODULE
Exchanged board only
15V_DET
F14V_ON
15V_IN
12V/15V_ON
VDA_DET
STB_ON
PC_PFC_DET
PC_HV_ON
PC_PFC_ON
STB_OUT
STB_OFF
SW_MAIN
5V_ON
VS_LVP2
VS_LVP1
VS_STOP
5V_OUT
VS_OUT
ALL_OFF
F_STB_ON
PANEL_ON
PS_SOS

TH-50PHD8BK/BS/EK/ES
P-Board Block Diagram

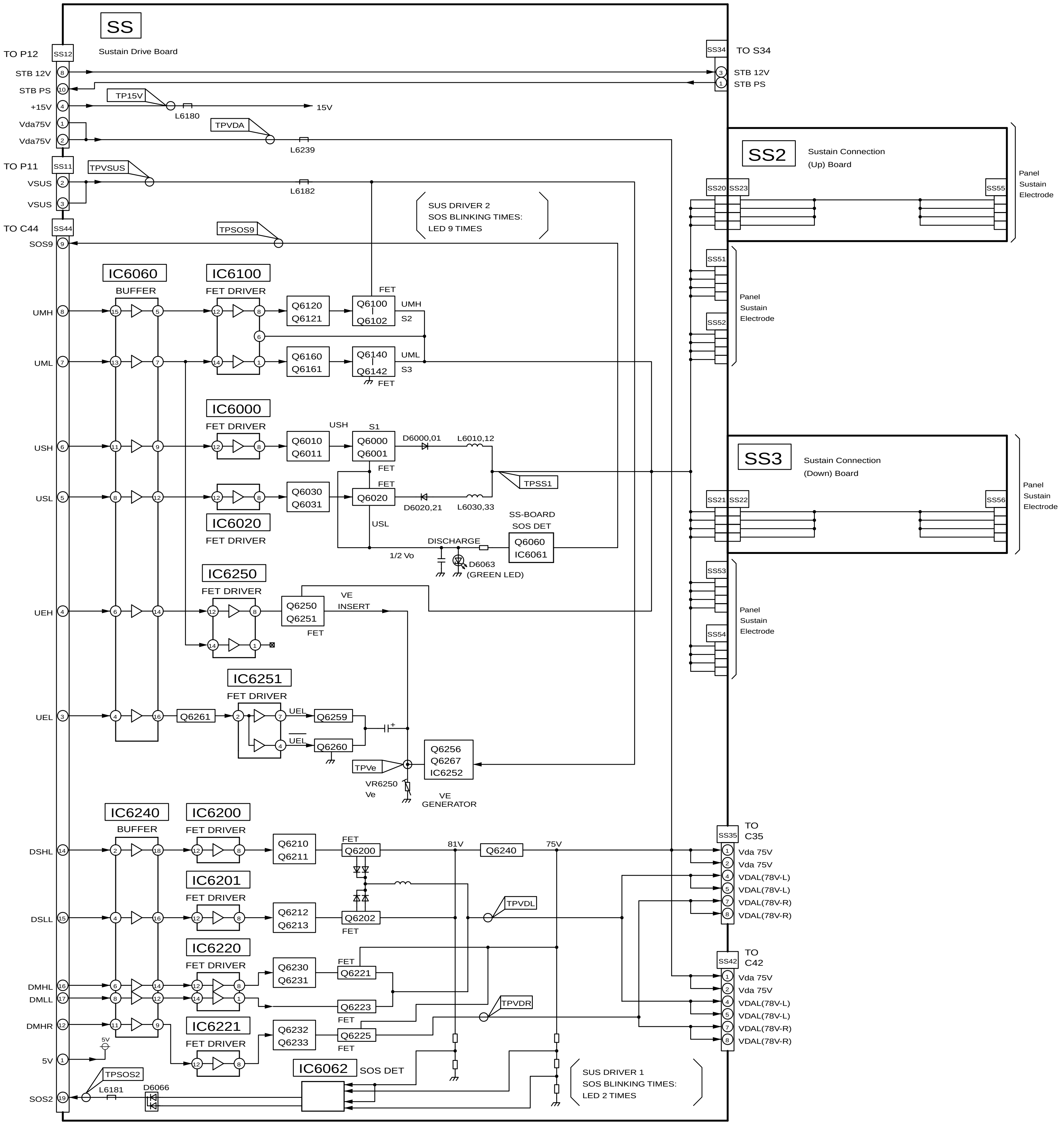
TH-50PHD8BK/BS/EK/ES
P-Board Block Diagram


SC
Scan Drive Board
TO P2
SC2
TPVSUS
V SUS
VSUS
V SUS
TO D20
SC20
IC6412
BUFFER
CSH
CSL
CMH
CML
CBK
CEL
IC6413 (2/3)
IC6413 (1/3)
IC6502
FET DRIVER
Q6567
Q6568
VSUS
CSH
Q6531
Q6532
FET
S1
D6511
D6512
L6501
L6504
IC6503
FET DRIVER
Q6571
Q6572
CSL
Q6537
FET
D6521
D6522
L6507
L6510
1/2 Vo
IC6501
FET DRIVER
VSUS
S2 CMH
Q6551
Q6552
Q6501,Q6502
Q6503,D6525
FET
S3 CML
Q6559
Q6560
Q6513,Q6514
Q6515
FET
IC6411
BUFFER
IC6413 (3/3)
CPH
CEL2
Q6413
CEL
Q6412
SCSU
CL
CLK
SIU
SID
SCSU
5V
5V
SOS1
TPSOS1
D6411
SOS DET
IC6421
Q6411
D6415
(GREEN LED)
TO P23
SC23
+15V
+15V
+15V
TP15V
SCAN DRIVER
SOS BLINKING TIMES:
LED 7 TIMES
PC6607
PHOTO COUPLER
CL
CLK
IC6650
INVERTER
FCLD
FCLU
FCLKD
FCLKU
PC6605
PHOTO COUPLER
SIU
SID
IC6651
INVERTER
FSIU
FSID
CEL2
PROU
PROD
PC6604
PHOTO COUPLER
CEL2
IC6640
FET DRIVER
Q6670
Ho
Vs
Lo
SC
Q6604
VSCN
FET
SC
Q6654
Vf
FET
TPVSET
TPSC1
Q6822, Q6823
VAD+15V
VSUS
VSET
VSET REG.
Q6814,Q6815,IC6812
PC6601
PHOTO COUPLER
CPH
IC6610
FET DRIVER
Q6658
Q6659
Ho
Lo
CPH
VSET INSERT
Q6655,Q6601
Q6656
Q6611~
Q6618
CPH
FET
+15V
F15V
Q6816
Q6817
Q6818
T6802
PC6813
IC6814
IC6652
AVR 9V
IN
OUT
9V
IC6816
AVR 9V
IN
OUT
9V
IC6621
AVR 5V
PC6602
OUT
IN
PC6602
PHOTO COUPLER
CEL
SCSU
Q6666
IC6620
FET DRIVER
Ho
Vs
Lo
CEL
Q6660
Q6661
Q6630~
Q6635
FET
Vf
VSET2 INSERT
Q6664,VR6602
Q6602
VSCN GEN
Q6819, IC6815
Q6820
TPVSCN
VSUS
TPVAD
IC6801
T6801
PC6819
Q6665
IC6630
FET DRIVER
Q6667
Lo
Q6668
Q6669
VAD INSERT
Q6650~
Q6652
FET
VAD
VAD GEN,VSET2
Q6821,VR6801
IC6817,IC6818
TPVSET2
D6518
Q6577
VSCN/VAD
SOS PROTECTOR
Vscn-Vad<14V:ON
D6419
PC6424
D6416
PC6422
VSCAN SOS
D6420
PC6425
5V
+15V
OUT
IN
IC6611
AVR 5V
PC6601
D6421
PC6423
VAD SOS
(-90V)
PC6604,PC6605,PC6607
5V
IC6654
AVR 5V
OUT
IN
IC6653
AVR 5V
IN
OUT
TO
SD46
SC46
Vf5
Vf5
PROD
Vf
FCLKD
Vf
FCLD
Vf
FSID
Vf
TO
SD42
SC42
Vf
FSID
FCLD
FCLKD
PROD
VF5V
Vf
VSCN
VSCN
Vfo
TO
SU41
SC41
Vf
FSIU
FCLU
FCLKU
PROU
VF5V
Vf
VSCN
VSCN
Vfo
TO
SU45
SC45
Vf
FSIU
Vf
FCLU
Vf
FCLKU
Vf
PROU
Vf5
Vf5


SD
Scan Out (down) Board
TO SC42
SD42
Vf
FSI
FCL
FCLK
PRO
VF5V
Vf
VSCN
Vfo
SI
CL
CLK
PRO
Vf5
TO SC46
SD46
IC6911
PDP SCAN DRIVER
IC6912
PDP SCAN DRIVER
IC6913
PDP SCAN DRIVER
IC6914
PDP SCAN DRIVER
IC6915
PDP SCAN DRIVER
IC6916
PDP SCAN DRIVER
SI
CLK
CL
PRO
S01
SO1
SO2
SO3
SO4
SO5
Vf5
VDD
SHIFT RESISTOR
LATCH
SELECTOR
OUT1
OUT2
OUT3
OUT62
OUT63
OUT64
64 PIN OUTPUT
Vf
Vfo
SD1
SD2
SD3
SD4
To 1st 96pins of SCAN ELECTRODES
To 2nd 96pins of SCAN ELECTRODES
To 3rd 96pins of SCAN ELECTRODES
To 4th 96pins of SCAN ELECTRODES

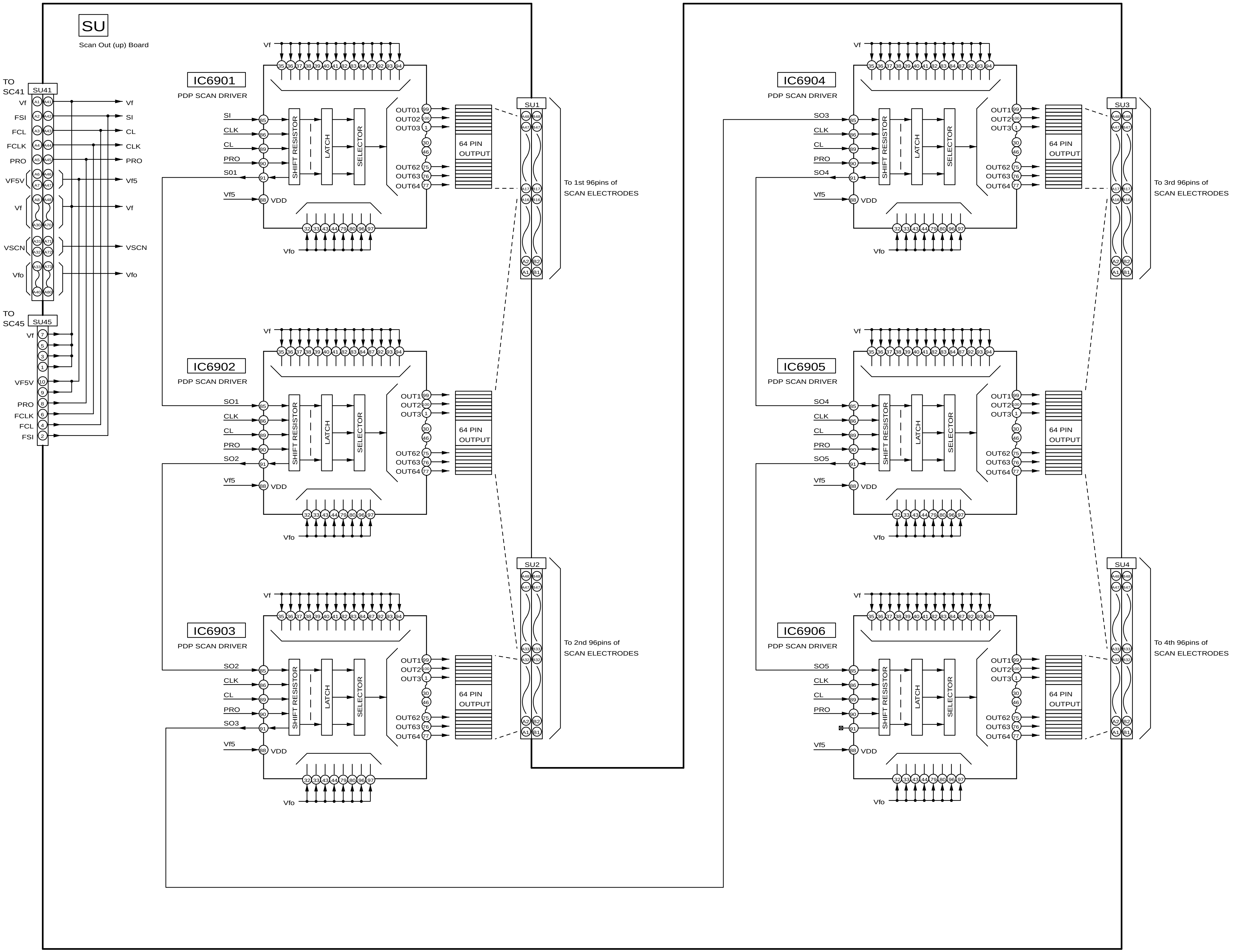
TH-50PHD8BK/BS/EK/ES
SD-Board Block Diagram

TH-50PHD8BK/BS/EK/ES
SD-Board Block Diagram


SS
Sustain Drive Board
TO P12
SS12
STB 12V
STB PS
+15V
Vda75V
Vda75V
TP15V
L6180
15V
TPVDA
L6239
TO P11
SS11
VSUS
VSUS
TPVSUS
L6182
TO C44
SS44
SOS9
TPSOS9
SUS DRIVER 2
SOS BLINKING TIMES:
LED 9 TIMES
IC6060
BUFFER
IC6100
FET DRIVER
UMH
UML
Q6120
Q6121
Q6100
Q6102
Q6160
Q6161
Q6140
Q6142
FET
S2
S3
IC6000
FET DRIVER
USH
S1
USL
Q6010
Q6011
Q6000
Q6001
D6000,01
L6010,12
TPSS1
Q6030
Q6031
Q6020
D6020,21
L6030,33
IC6020
FET DRIVER
SS-BOARD
SOS DET
Q6060
IC6061
DISCHARGE
1/2 Vo
D6063
(GREEN LED)
IC6250
FET DRIVER
UEH
Q6250
Q6251
VE
INSERT
IC6251
FET DRIVER
UEL
Q6261
Q6259
Q6260
TPVe
VR6250
Ve
Q6256
Q6267
IC6252
VE
GENERATOR
IC6240
BUFFER
IC6200
FET DRIVER
DSHL
Q6210
Q6211
Q6200
81V
Q6240
75V
IC6201
FET DRIVER
DSLL
Q6212
Q6213
Q6202
TPVDL
IC6220
FET DRIVER
DMHL
DMLL
Q6230
Q6231
Q6221
Q6223
TPVDR
DMHR
IC6221
FET DRIVER
Q6232
Q6233
Q6225
5V
IC6062
SOS DET
TPSOS2
L6181
D6066
SOS2
SUS DRIVER 1
SOS BLINKING TIMES:
LED 2 TIMES
SS34
TO S34
STB 12V
STB PS
SS2
Sustain Connection
(Up) Board
SS20
SS23
SS55
Panel
Sustain
Electrode
SS51
SS52
Panel
Sustain
Electrode
SS3
Sustain Connection
(Down) Board
SS21
SS22
SS56
Panel
Sustain
Electrode
SS53
SS54
Panel
Sustain
Electrode
SS35
TO
C35
Vda 75V
Vda 75V
VDAL(78V-L)
VDAL(78V-L)
VDAL(78V-R)
VDAL(78V-R)
SS42
TO
C42
Vda 75V
Vda 75V
VDAL(78V-L)
VDAL(78V-L)
VDAL(78V-R)
VDAL(78V-R)

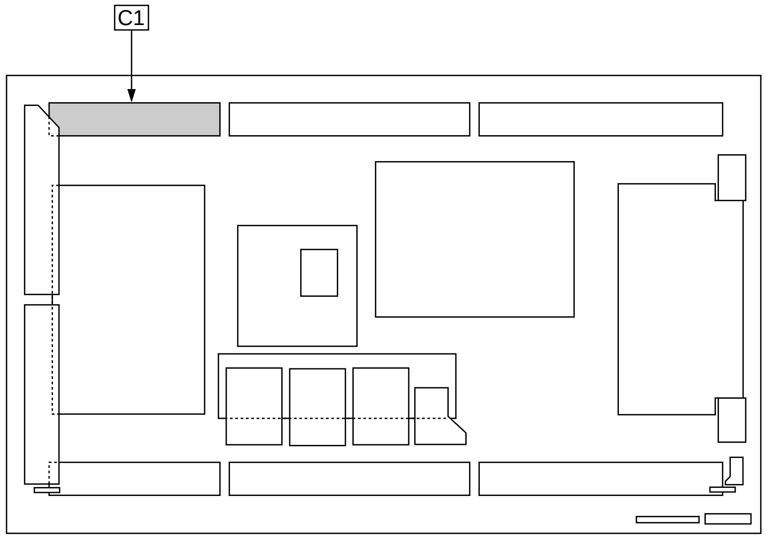
TH-50PHD8BK/BS/EK/ES
SS, SS2 and SS3-Board Block Diagram

TH-50PHD8BK/BS/EK/ES
SS, SS2 and SS3-Board Block Diagram


SU
Scan Out (up) Board
TO SC41
SU41
Vf
FSI
FCL
FCLK
PRO
VF5V
Vf
VSCN
Vfo
Vf
SI
CL
CLK
PRO
Vf5
Vf
VSCN
Vfo
TO SC45
SU45
Vf
VF5V
PRO
FCLK
FCL
FSI
IC6901
PDP SCAN DRIVER
IC6902
PDP SCAN DRIVER
IC6903
PDP SCAN DRIVER
IC6904
PDP SCAN DRIVER
IC6905
PDP SCAN DRIVER
IC6906
PDP SCAN DRIVER
SI
SO1
SO2
SO3
SO4
SO5
CLK
CL
PRO
Vf5
VDD
Vf
Vfo
SHIFT RESISTOR
LATCH
SELECTOR
OUT01
OUT02
OUT03
OUT1
OUT2
OUT3
OUT62
OUT63
OUT64
64 PIN OUTPUT
SU1
SU2
SU3
SU4
To 1st 96pins of SCAN ELECTRODES
To 2nd 96pins of SCAN ELECTRODES
To 3rd 96pins of SCAN ELECTRODES
To 4th 96pins of SCAN ELECTRODES

TH-50PHD8BK/BS/EK/ES
SU-Board Block Diagram

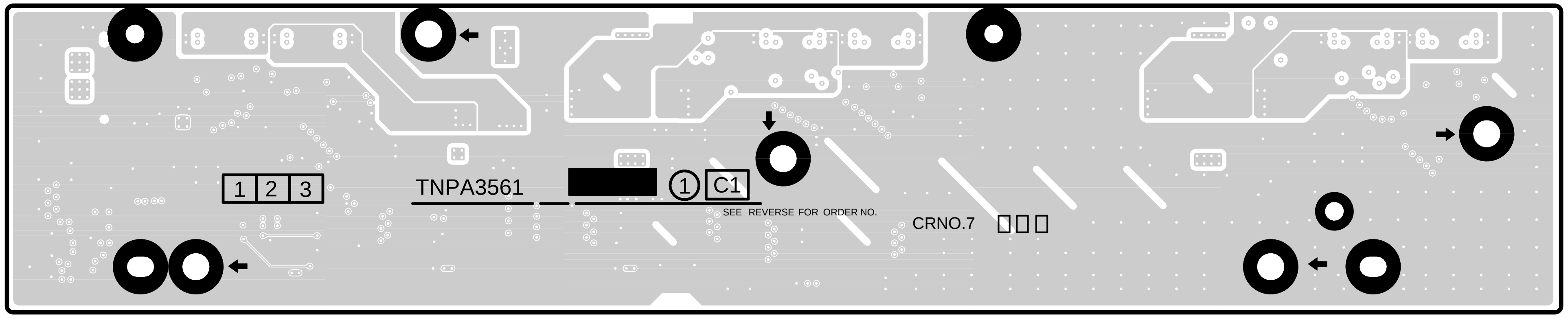
TH-50PHD8BK/BS/EK/ES
SU-Board Block Diagram



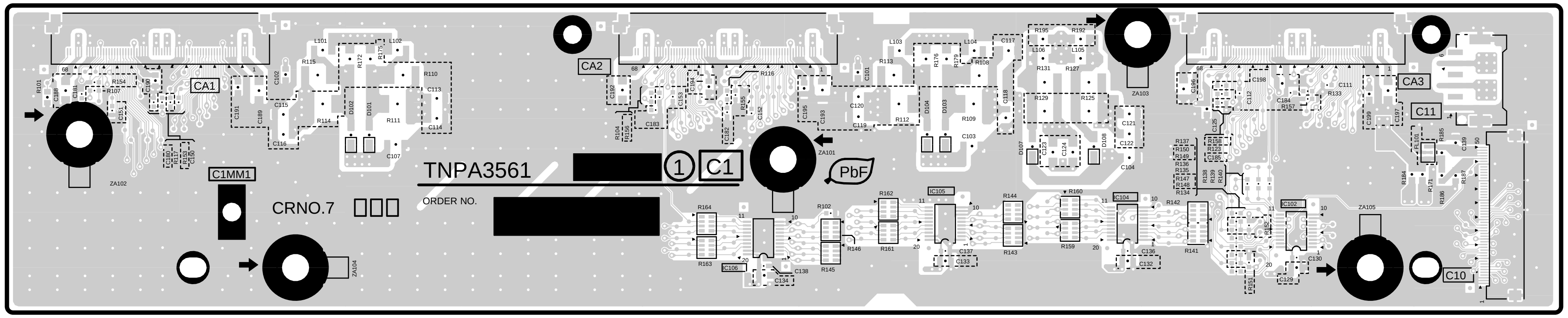
Parts Location

C1-BOARD	
IC	
IC7102	F-2
IC7104	F-2
IC7105	E-2
IC7106	D-1

C1-BOARD (FOIL SIDE)
TNPA3561

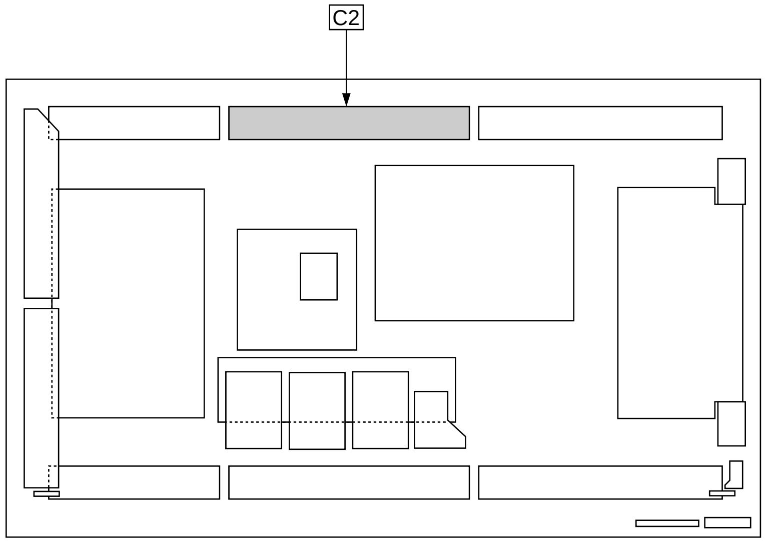

1 2 3
TNPA3561
①
C1
SEE REVERSE FOR ORDER NO.
CRNO.7

C1-BOARD (COMPONENT SIDE)
TNPA3561

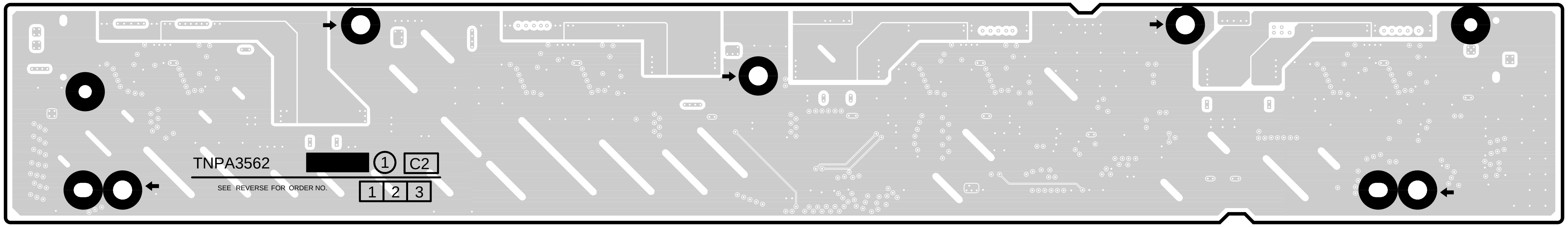

CA1
CA2
CA3
C11
C1MM1
CRNO.7
TNPA3561
①
C1
ORDER NO.
PbF
C10
ZA101
ZA102
ZA103
ZA104
ZA105
IC105
IC104
IC102
C106

Parts Location

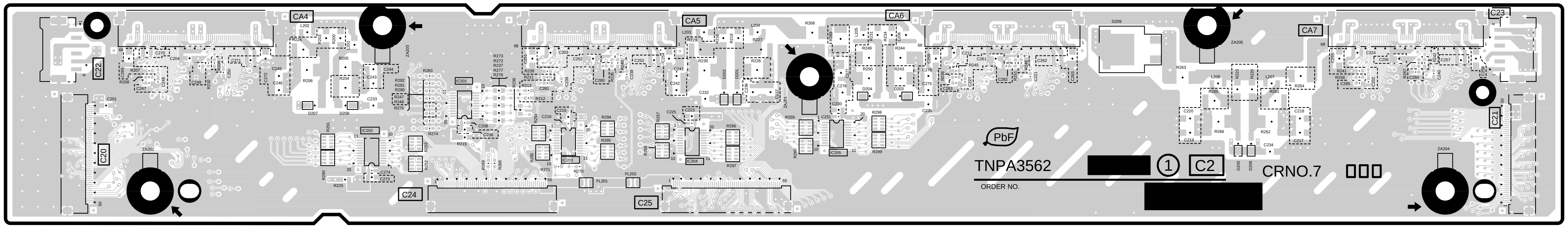
C2-BOARD	
IC	
IC7201	C-2
IC7202	C-2
IC7203	D-2
IC7204	E-2
IC7205	E-2

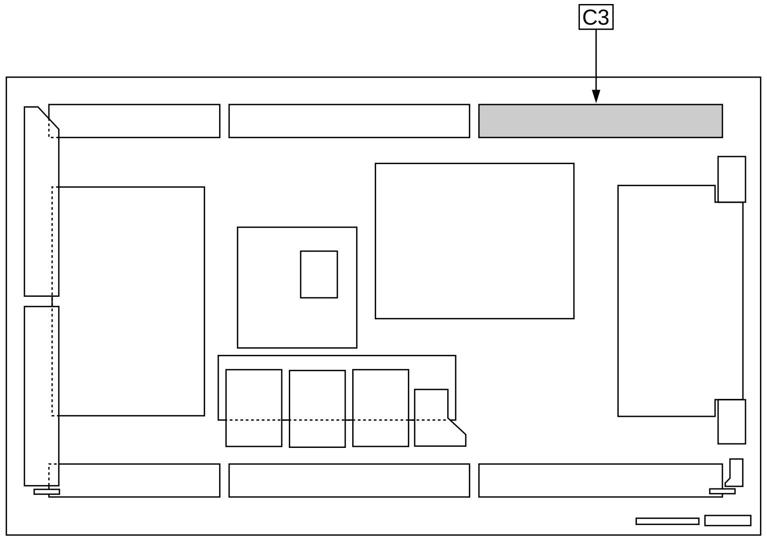


C2-BOARD (FOIL SIDE)
TNPA3562


TNPA3562
①
C2
SEE REVERSE FOR ORDER NO.
1
2
3

C2-BOARD (COMPONENT SIDE)
TNPA3562

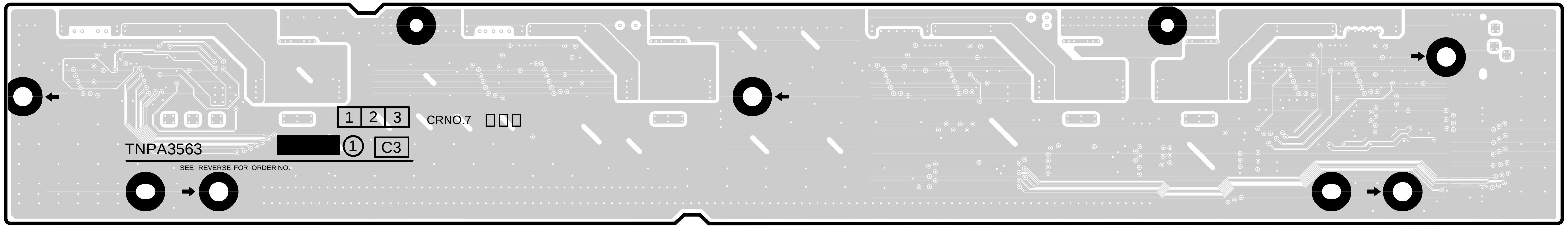

CA4
CA5
CA6
CA7
C20
C21
C22
C23
C24
C25
PbF
TNPA3562
①
C2
ORDER NO.
CRNO.7



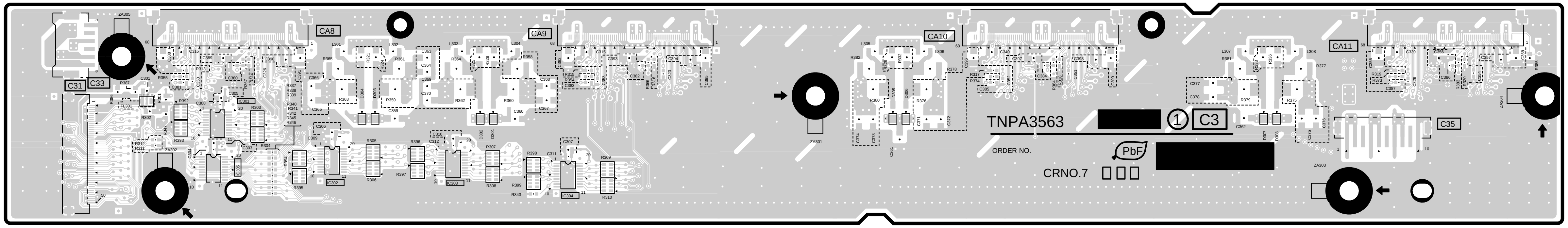
Parts Location

C3-BOARD	
IC	
IC7301	F-2
IC7302	C-2
IC7303	C-2
IC7304	D-2
IC7305	B-2

C3-BOARD (FOIL SIDE)
TNPA3563


1 2 3
CRNO.7
TNPA3563
① C3
SEE REVERSE FOR ORDER NO.

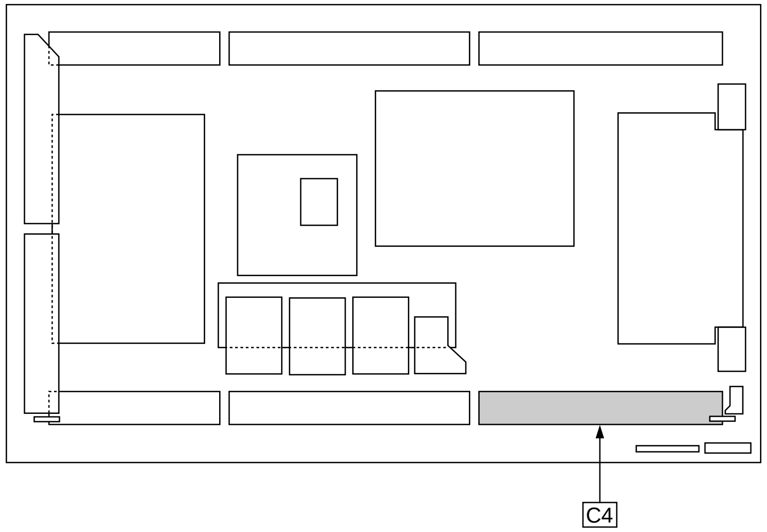
C3-BOARD (COMPONENT SIDE)
TNPA3563


ZA305
CA8
CA9
CA10
CA11
C31
C33
C35
ZA301
ZA302
ZA303
ZA304
TNPA3563
① C3
ORDER NO.
PbF
CRNO.7

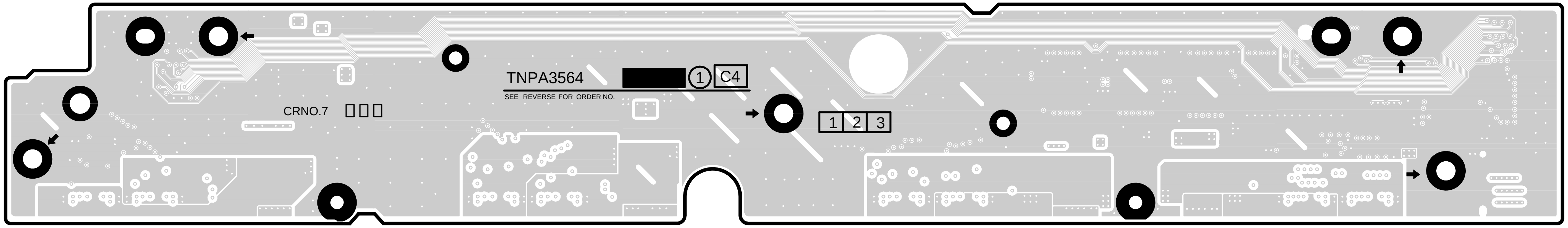
TH-50PHD8BK/BS/EK/ES
C3-BOARD TNPA3563

Parts Location

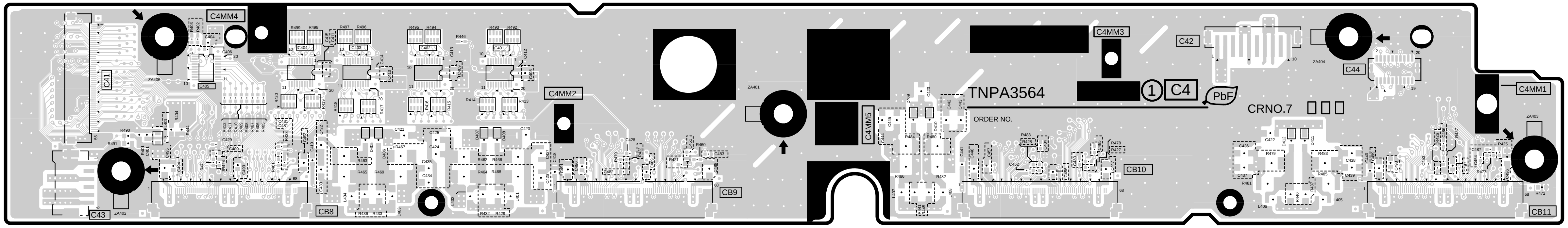
C4-BOARD	
IC	
IC7401	D-2
IC7402	C-2
IC7403	C-2
IC7404	C-2
IC7405	B-2



C4-BOARD (FOIL SIDE)
TNPA3564


TNPA3564
SEE REVERSE FOR ORDER NO.
① C4
CRNO.7
1 2 3

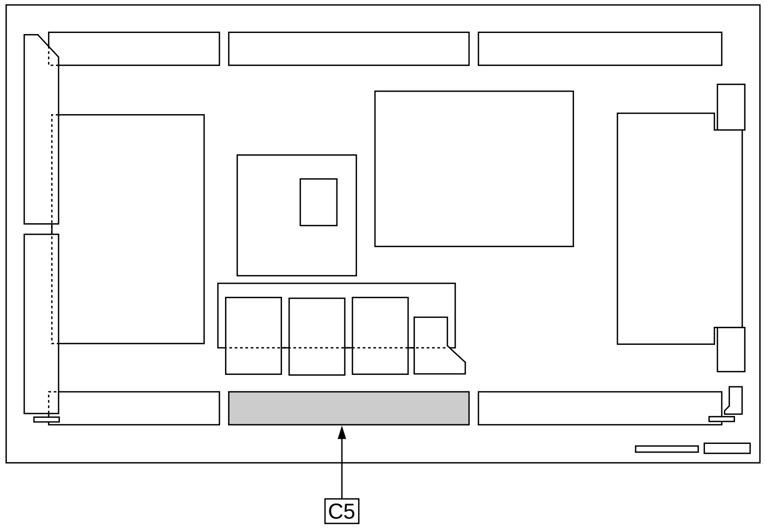
C4-BOARD (COMPONENT SIDE)
TNPA3564


C4MM4
C41
C43
CB8
C4MM2
CB9
C4MM5
TNPA3564
ORDER NO.
① C4
PbF
C4MM3
C42
CB10
CRNO.7
C44
C4MM1
CB11

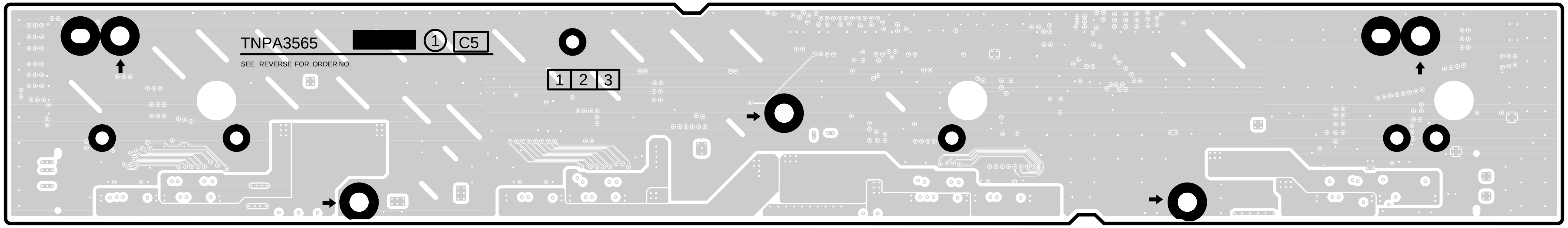
TH-50PHD8BK/BS/EK/ES
C4-BOARD TNPA3564

Parts Location

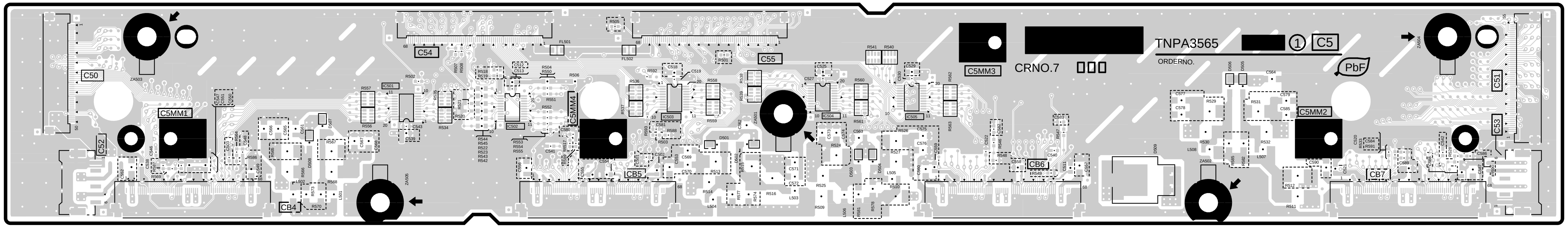
C5-BOARD	
IC	
IC7501	C-2
IC7502	D-2
IC7503	D-2
IC7504	E-2
IC7505	F-2



C5-BOARD (FOIL SIDE)
TNPA3565


TNPA3565
①
C5
SEE REVERSE FOR ORDER NO.
1
2
3

C5-BOARD (COMPONENT SIDE)
TNPA3565


C50
C52
C5MM1
CB4
C54
C5MM4
CB5
C55
C5MM3
CRNO.7
TNPA3565
ORDERNO.
①
C5
PbF
C5MM2
CB6
CB7
C51
C53

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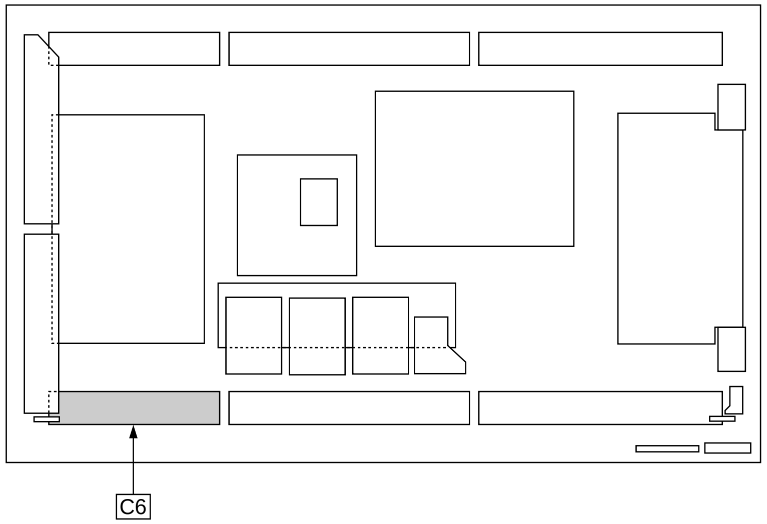
1

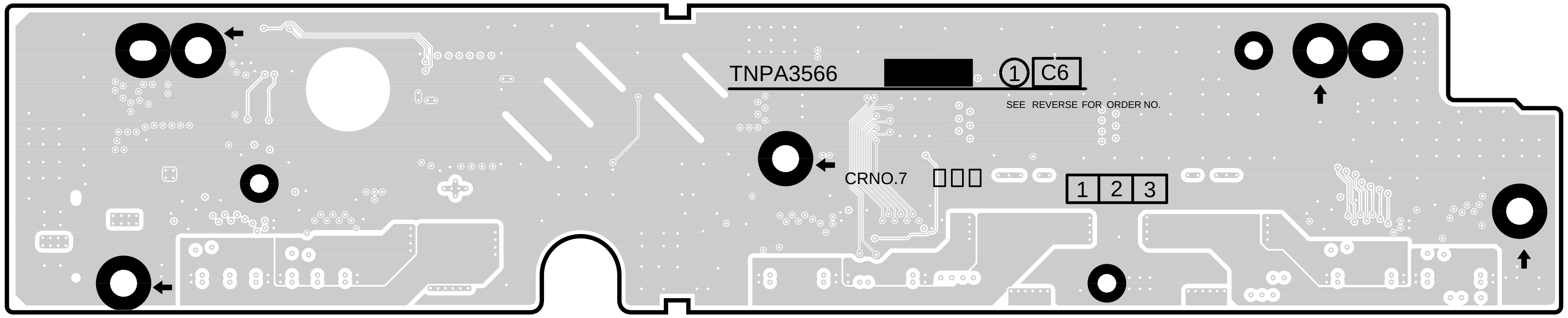
A B C D E F G H I

Parts Location

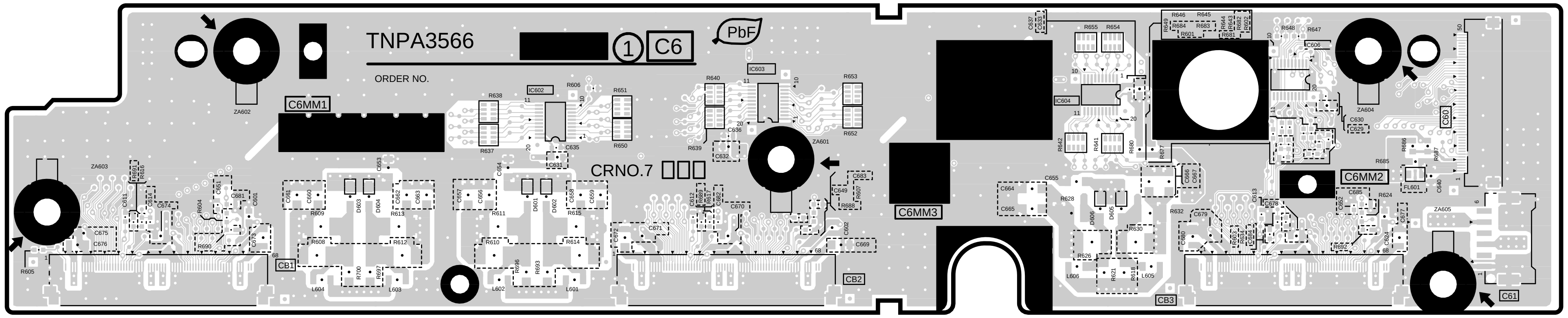
C6-BOARD	
IC	
IC7602	C-2
IC7603	D-2
IC7604	E-2
IC7606	F-2



C6-BOARD (FOIL SIDE)
TXNC610XQS


TNPA3566
1
C6
SEE REVERSE FOR ORDER NO.
CRNO.7
1
2
3

C6-BOARD (COMPONENT SIDE)
TXNC610XQS


TNPA3566
1
C6
PbF
ORDER NO.
C6MM1
C6MM2
C6MM3
CRNO.7
IC602
IC603
IC604
ZA601
ZA602
ZA603
ZA604
ZA605
CB1
CB2
CB3
C60
C61

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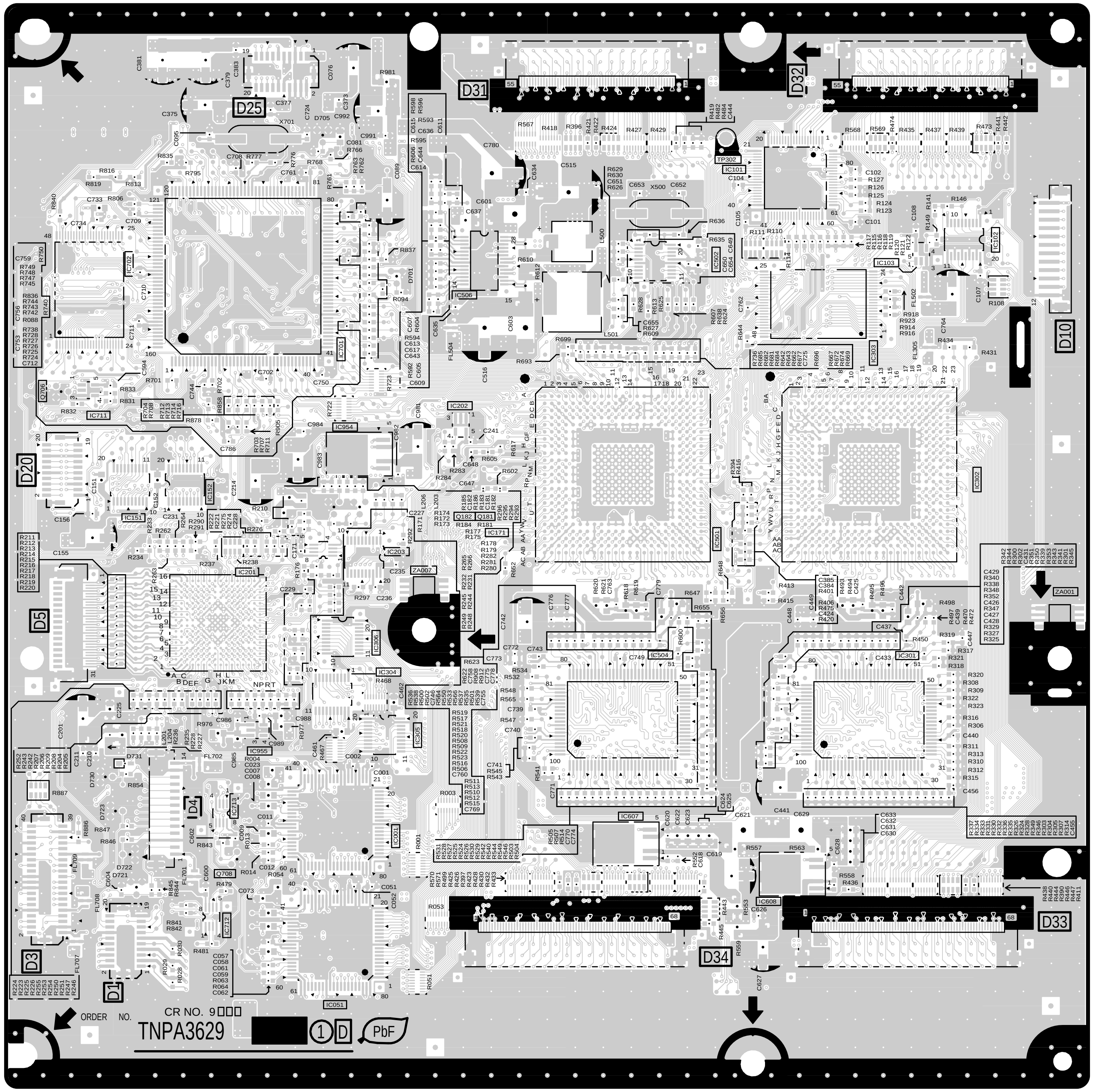
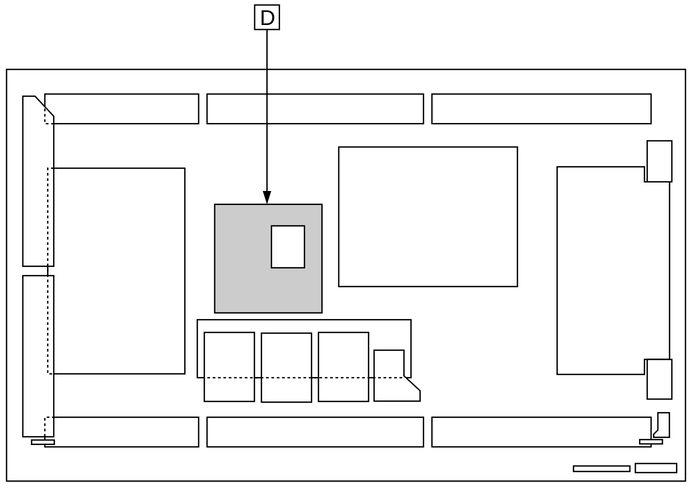
A B C D E F G H I

D-BOARD (COMPONENT SIDE)
TZTNP01YSSE


D25
D31
D32
D10
D20
D5
D4
D3
D1
D33
D34
TP302
ORDER NO.
CR NO. 9
TNPA3629
1
D
PbF



Parts Location

D-BOARD (COMPONENT SIDE)	
IC	
IC9001	D-2
IC9051	C-1
IC9101	E-5
IC9102	F-5
IC9103	F-5
IC9151	B-3
IC9152	C-4
IC9171	D-3
IC9201	C-3
IC9202	D-4
IC9203	D-3
IC9301	F-3
IC9302	F-4
IC9303	F-4
IC9304	C-3
IC9305	D-2
IC9306	C-3
IC9501	E-3
IC9502	E-5
IC9504	E-3
IC9506	D-4
IC9607	E-2
IC9608	E-2
IC9701	C-4
IC9702	B-5
IC9711	B-4
IC9712	C-2
IC9713	C-2
IC9954	C-4
IC9955	C-2
TRANSISTOR	
Q9181	D-3
Q9182	D-3
Q9706	B-4
Q9708	C-2
TP	
TP302	E-5

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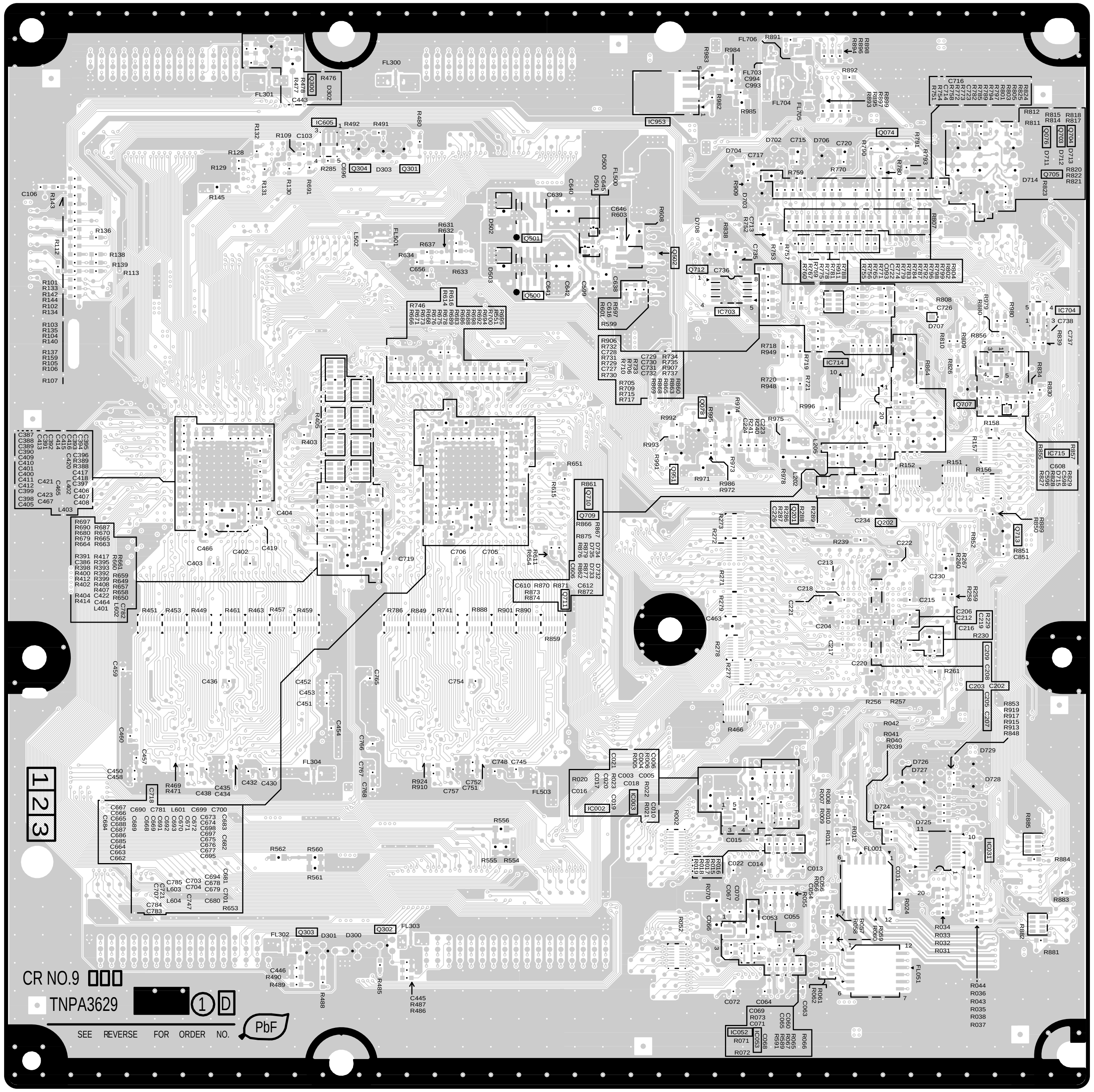
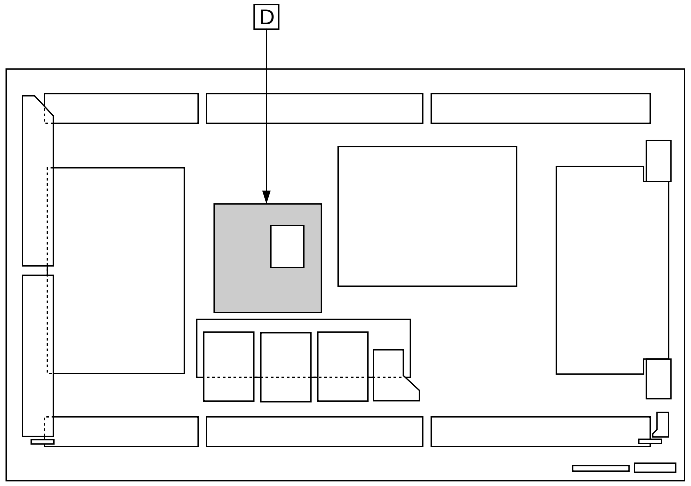
A B C D E F G H I

D-BOARD (FOIL SIDE)
TZTNP01YSSE


IC953
IC605
Q301
Q304
Q501
Q500
IC703
IC714
IC704
IC715
Q074
Q707
Q202
Q709
IC002
IC003
IC052
IC053
IC031
Q303
Q302
FL300
FL301
FL302
FL303
FL304
FL503
FL703
FL704
FL705
FL706
FL001
FL051
CR NO.9
TNPA3629
1
D
1 2 3
SEE REVERSE FOR ORDER NO.
PbF



Parts Location

D-BOARD (FOIL SIDE)

IC		TRANSISTOR	
IC9002	D-2	Q9074	F-5
IC9003	E-2	Q9076	F-5
IC9031	F-2	Q9078	E-4
IC9052	E-1	Q9201	E-3
IC9053	E-1	Q9202	F-3
IC9605	C-5	Q9300	C-5
IC9703	E-4	Q9301	D-5
IC9704	G-4	Q9302	C-2
IC9714	F-4	Q9303	C-2
IC9715	F-4	Q9304	C-5
IC9953	E-5	Q9500	D-4
		Q9501	D-5
		Q9502	E-5
		Q9703	G-5
		Q9704	G-5
		Q9705	F-5
		Q9707	F-4
		Q9709	D-3
		Q9710	D-4
		Q9711	D-3
		Q9712	E-5
		Q9713	F-3
		Q9951	E-4

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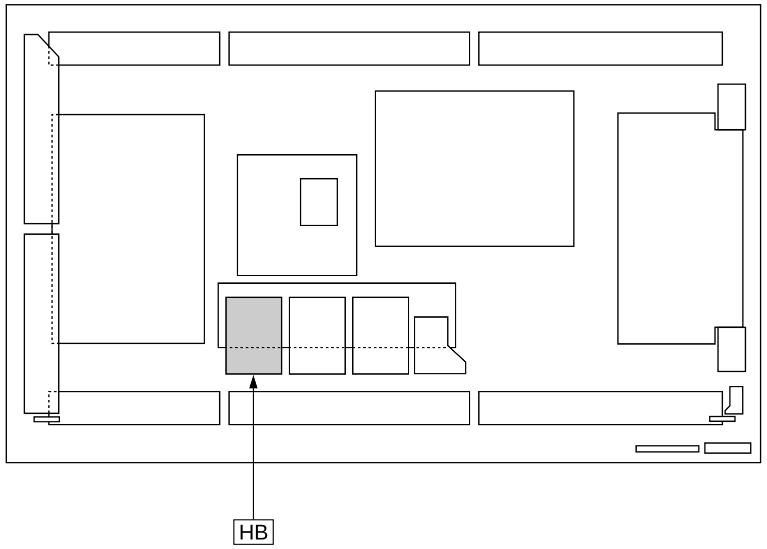
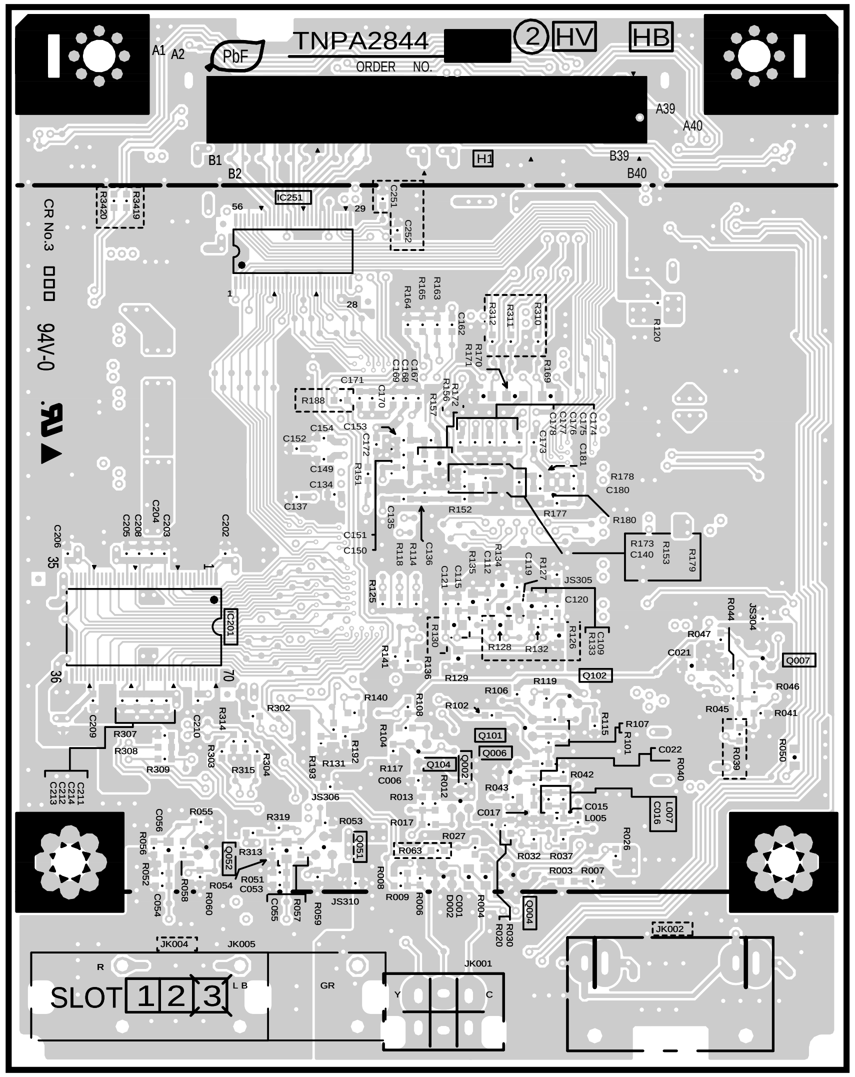
1

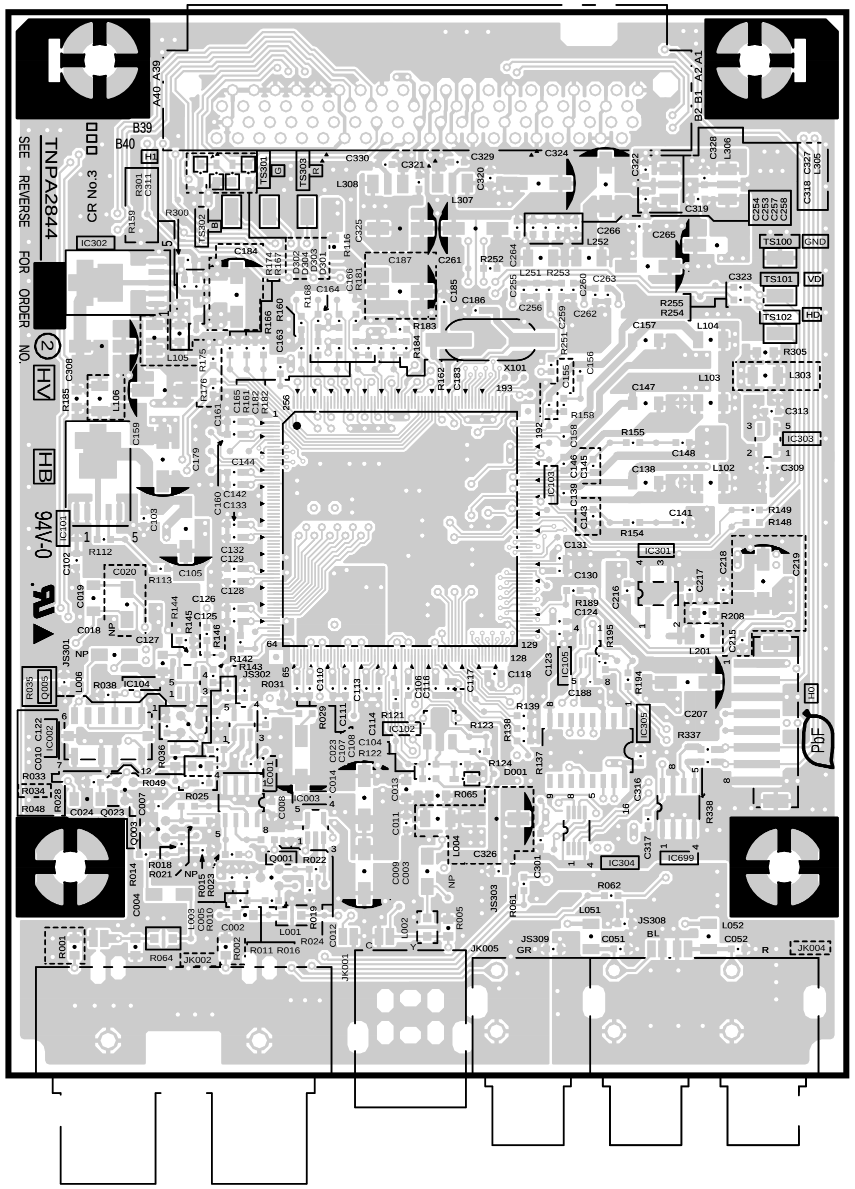
A B C D E F G H I



HB-BOARD (FOIL SIDE)
TNPA2844AB


TNPA2844
ORDER NO.
HV
HB
PbF
A1
A2
A39
A40
B1
B2
B39
B40
H1
CR No.3
94V-0
IC251
IC201
Q101
Q102
Q104
Q006
Q007
Q052
Q051
Q004
JK001
JK002
JK004
JK005
JS305
JS306
JS310
SLOT 1 2 3
R
L B
GR
Y
C

HB-BOARD(COMPONENT SIDE)
TNPA2844AB


TNPA2844
CR No.3
SEE REVERSE FOR ORDER NO.
HV
HB
94V-0
PbF
A1
A2
A39
A40
B1
B2
B39
B40
H1
IC302
IC101
IC104
IC102
IC003
IC001
IC002
IC301
IC303
IC304
IC305
IC699
IC105
IC103
TS100
TS101
TS102
TS301
TS302
TS303
GND
VD
HD
X101
Q001
Q005
Q003
Q023
JS301
JS302
JS303
JS308
JS309
JK001
JK002
JK004
JK005
GR
BL
R

Parts Location

HB-BOARD			
IC		**TRANSISTOR**	
IC3001	E-2	Q3001	E-2
IC3002	D-2	Q3002	B-2
IC3003	E-2	Q3003	E-2
IC3101	D-3	Q3004	C-2
IC3102	E-2	Q3005	D-2
IC3103	F-3	Q3006	B-2
IC3104	E-2	Q3007	C-2
IC3105	F-2	Q3023	D-2
IC3201	B-3	Q3051	B-2
IC3251	B-4	Q3052	B-2
IC3301	F-3	Q3101	B-2
IC3302	D-4	Q3102	C-2
IC3303	G-3	Q3104	B-2
IC3304	F-2	**TP**	
IC3305	F-2	TS3100	G-4
IC3699	F-2	TS3101	G-4
		TS3102	G-4
		TS3301	E-4
		TS3302	E-4
		TS3303	E-4

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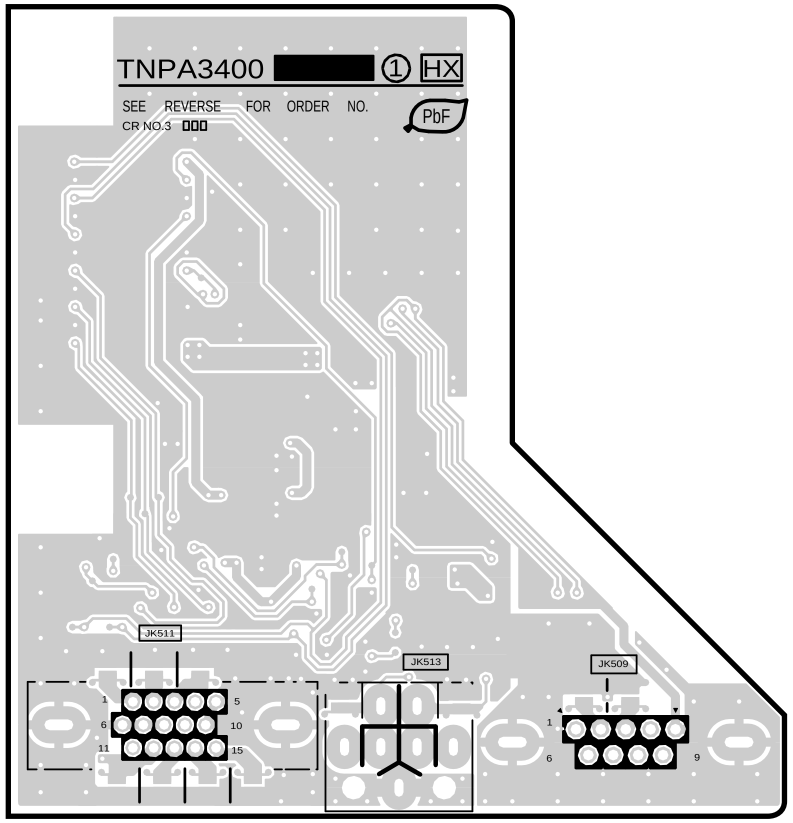
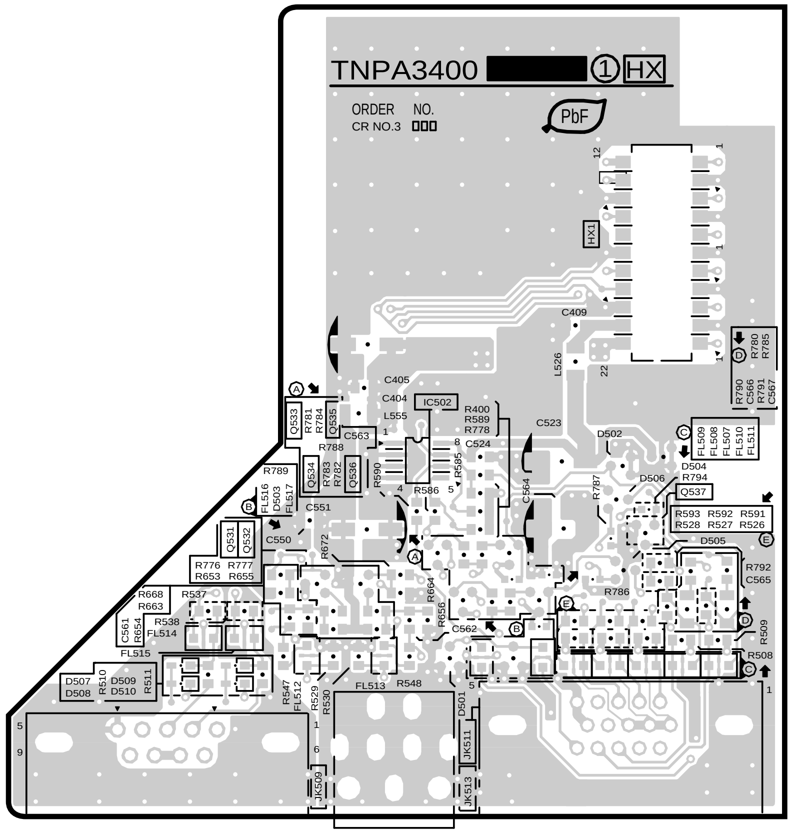
A B C D E F G H I

HX-BOARD(FOIL SIDE)
TZTNP030VAS


TNPA3400
① HX
SEE REVERSE FOR ORDER NO.
CR NO.3
PbF
JK511
JK513
JK509
1
5
6
10
11
15
1
6
9

HX-BOARD(COMPONENT SIDE)
TZTNP030VAS


TNPA3400
① HX
ORDER NO.
CR NO.3
PbF
HX1
C409
L526
C405
C404
L555
IC502
R400
R589
R778
C524
C523
D502
Q533
R781
R784
Q535
C563
R788
Q534
R783
R782
Q536
R590
R586
R595
C564
R787
D506
R794
D504
Q537
FL509
FL508
FL507
FL510
FL511
R790
C566
R791
C567
R780
R785
R789
FL516
D503
FL517
C551
C550
Q531
Q532
R872
R776
R777
R653
R655
R668
R663
R537
C561
R654
R538
FL514
FL515
R664
R656
C562
R786
R593
R592
R591
R528
R527
R526
D505
R792
C565
R509
R508
D507
D508
R510
D509
D510
R511
R547
FL512
R529
R530
FL513
R548
D501
JK511
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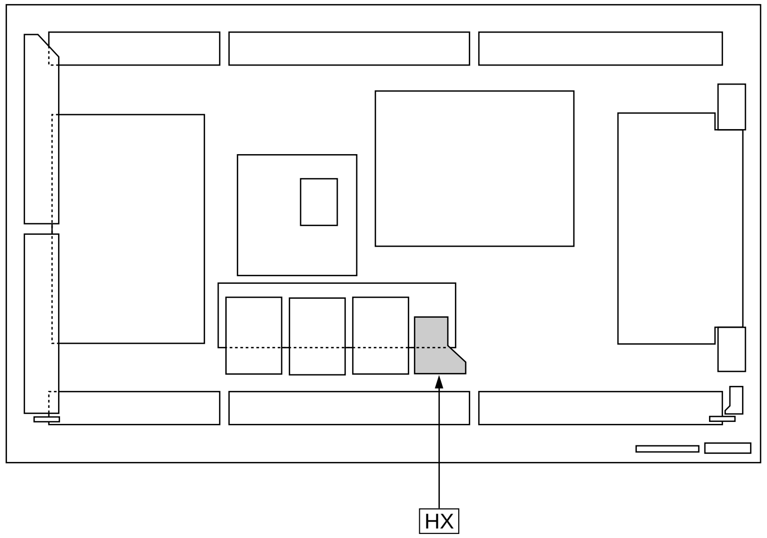
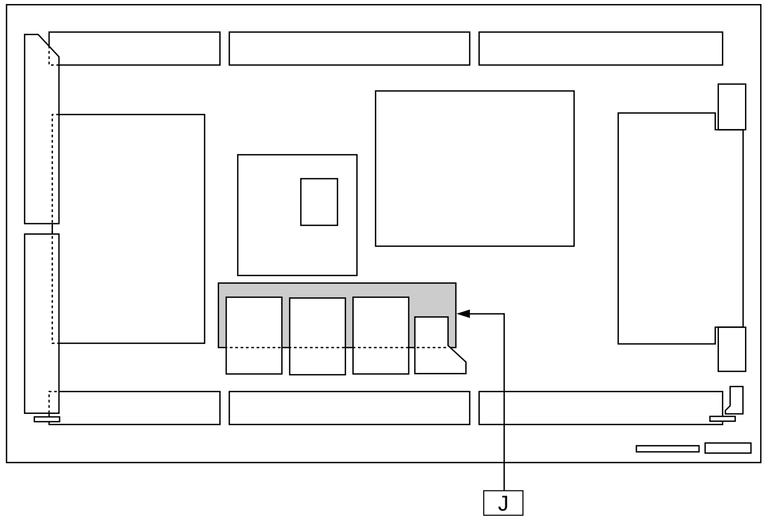


Parts Location

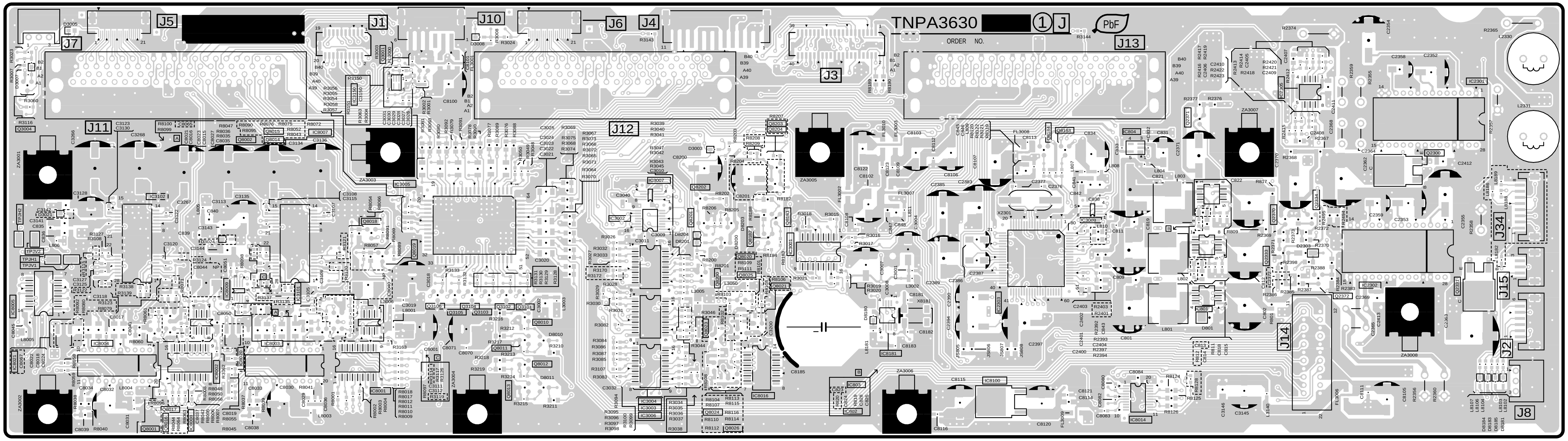
HX-BOARD			
IC		TRANSISTOR	
IC3502	E-4	Q3531	D-3
		Q3532	D-3
		Q3533	E-3
		Q3534	E-3
		Q3535	E-3
		Q3536	E-3
		Q3537	F-3

Parts Location

J-BOARD (COMPONENT SIDE)	
IC	
IC801	G-2
IC802	E-2
IC803	E-2
IC804	G-3
IC2301	I-4
IC2302	H-3
IC2303	F-2
IC2305	H-4
IC3001	E-3
IC3002	D-3
IC3003	D-2
IC3004	D-2
IC3005	C-3
IC3006	D-2
IC3007	D-3
IC3008	G-3
IC3101	B-3
IC3102	B-3
IC3150	C-4
IC8001	C-2
IC8002	B-2
IC8003	B-2
IC8004	A-2
IC8005	A-2
IC8007	B-3
IC8008	B-2
IC8009	B-3
IC8014	G-2
IC8016	E-2
IC8020	B-2
IC8021	A-2
IC8100	F-2
IC8181	F-2
TRANSISTOR	
Q2300	H-3
Q2331	I-2
Q2333	H-3
Q2334	H-3
Q2370	H-3
Q2371	G-2
Q2372	H-2
Q3001	C-4
Q3004	A-3
Q3101	D-2
Q3102	C-2
Q3103	C-2
Q3104	C-2
Q3105	C-2
Q3106	C-2
Q8001	B-2
Q8002	B-3
Q8010	D-2
Q8011	C-2
Q8012	D-2
Q8013	C-2
Q8014	B-3
Q8015	B-3
Q8016	B-2
Q8017	B-2
Q8018	C-3
Q8019	C-3
Q8020	E-3
Q8021	E-3
Q8023	E-2
Q8024	E-2
Q8025	E-3
Q8026	E-2
Q8181	E-2
Q8182	E-3
Q8183	F-3
Q8184	F-3
Q8200	E-3
Q8201	D-3
Q8202	E-3
Q8203	E-3
Q8204	E-3
TP	
TPJH1	A-3
TPJH2	A-3
TPJV1	A-3
TPJV2	A-3



J-BOARD (COMPONENT SIDE)
TNPA3630AB



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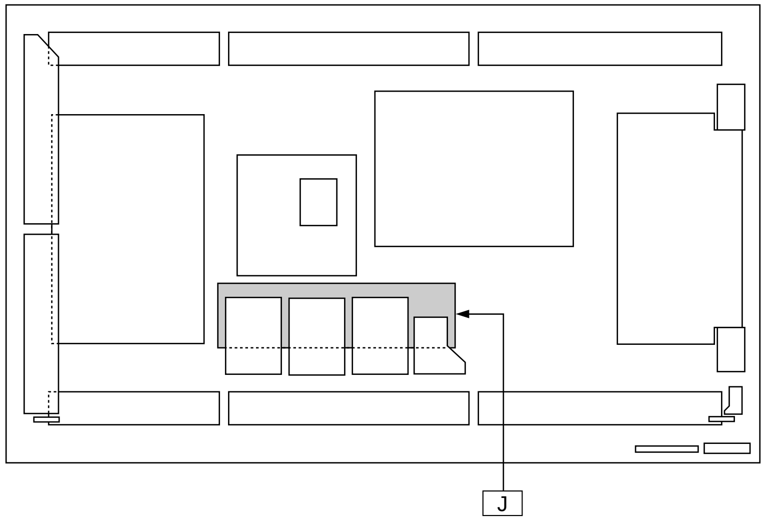
A B C D E F G H I

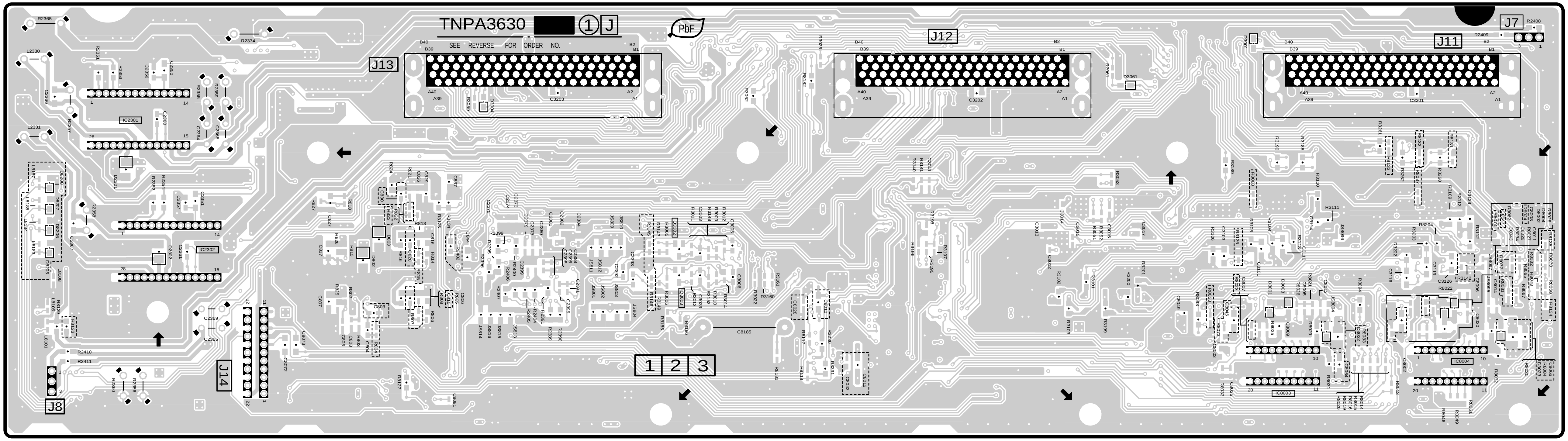
TH-50PHD8BK/BS/EK/ES
J-BOARD TNPA3630AB

Parts Location

J-BOARD (FOIL SIDE)			
IC		**TRANSISTOR**	
IC2301	A-3	Q3002	D-3
IC2302	B-3	Q3003	D-2
IC8003	H-2		
IC8004	I-2		



J-BOARD (FOIL SIDE)
TNPA3630AB


TNPA3630
1
J
SEE REVERSE FOR ORDER NO.
PbF
J13
J12
J11
J7
J8
J14
1 2 3
IC2301
IC2302
IC8003
IC8004
B40
B39
B2
B1
A40
A39
A2
A1
C3203
C3202
C3201
R2365
R2374
R2408
R2409
L2330
L2331
R2410
R2411
C2369
C2365
C8185
R3111
R3204
C3126
R8022
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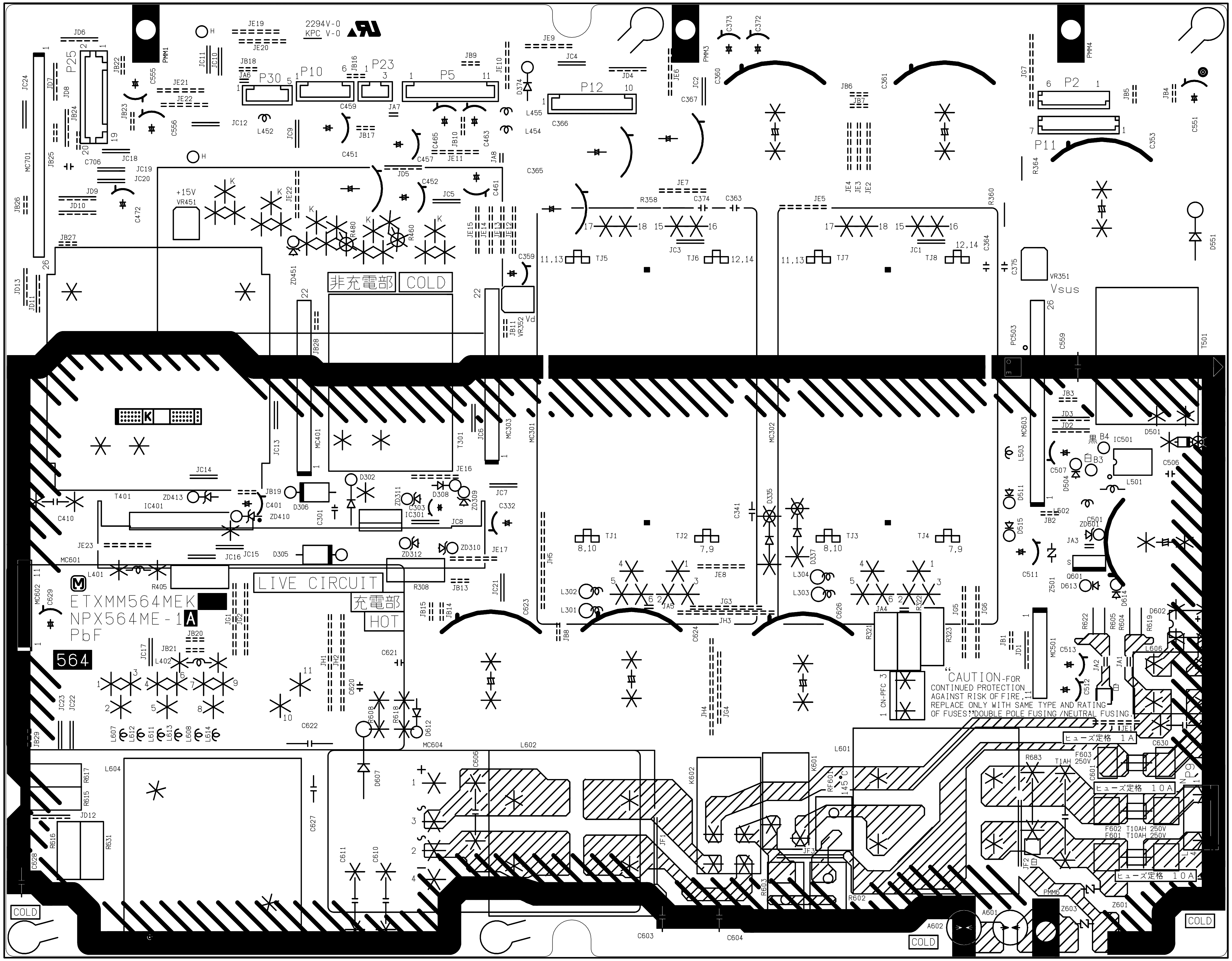
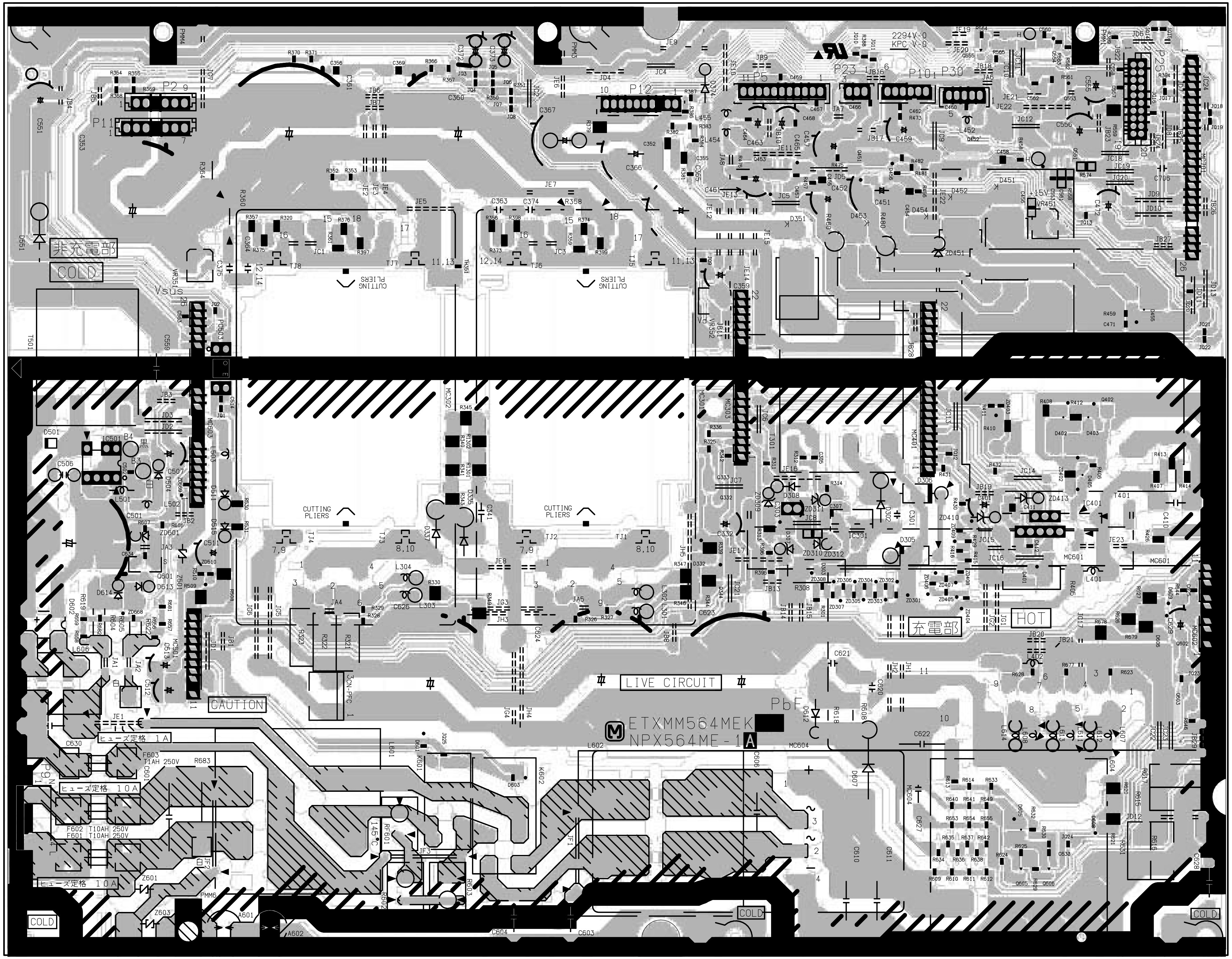
1
A
B
C
D
E
F
G
H
I

P-BOARD (COMPONENT SIDE)
ETXMM564MEK


P25
P30
P10
P23
P5
P12
P2
P11
P9
2294V-0
KPC V-0
+15V
VR451
Vsus
VR351
Vd.
VR352
非充電部
COLD
LIVE CIRCUIT
充電部
HOT
ETXMM564MEK
NPX564ME-1A
PbF
564
"CAUTION-FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATING OF FUSES." DOUBLE POLE FUSING/NEUTRAL FUSING.
ヒューズ定格 1A
ヒューズ定格 10A
ヒューズ定格 10A
F603 T1AH 250V
F602 T10AH 250V
F601 T10AH 250V
145°C
COLD
COLD
COLD
1
2
3
4
5
6
A
B
C
D
E
F
G
H
I

P-BOARD (FOIL SIDE)
ETXMM564MEK



6
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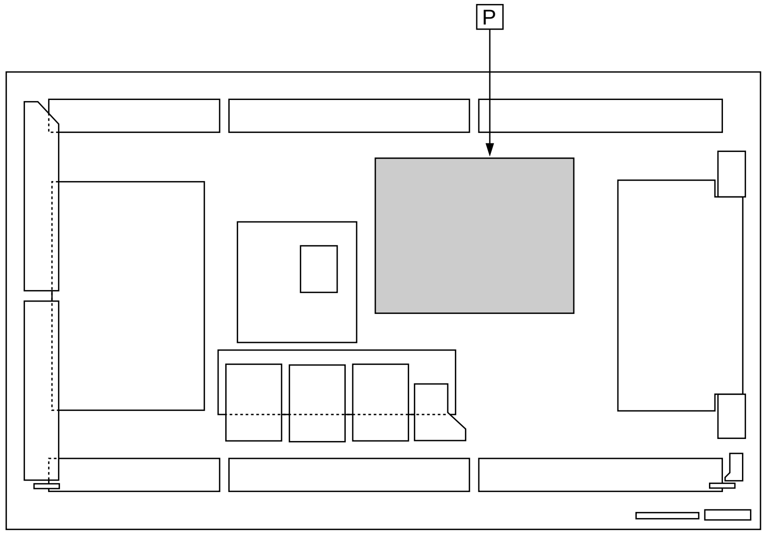
C
D
E
F
G
H
I
ETXMM564MEK
NPX564ME-1A
LIVE CIRCUIT
CAUTION
HOT
COLD
PbF



Parts Location

P-BOARD (FOIL SIDE)			
IC		**TRANSISTOR**	
IC301	F-3	Q332	E-3
IC401	G-3	Q333	E-3
IC501	B-3	Q402	H-4
MC301	E-4	Q451	F-5
MC302	C-4	Q452	G-5
MC303	F-4	Q453	F-5
MC401	G-4	Q551	G-5
MC501	B-2	Q553	G-6
MC601	G-2	Q554	G-6
MC602	G-2	Q555	G-6
MC603	B-4	Q601	B-3
MC604	F-1	Q602	H-3
MC701	H-5	Q603	H-2
		Q605	G-1
		Q606	G-1

Parts Location

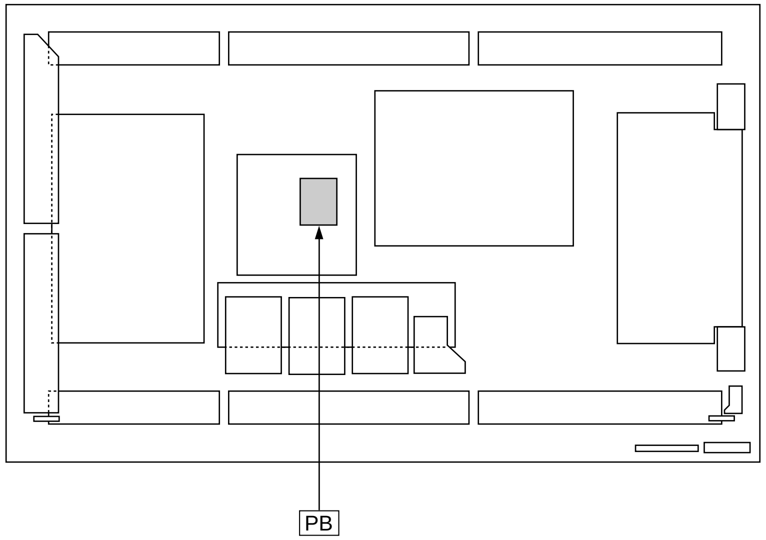
P-BOARD (COMPONENT SIDE)			
IC		**TRANSISTOR**	
IC301	D-3	Q601	H-3
IC401	C-3		
IC501	H-3		
MC301	E-4		
MC302	G-4		
MC303	D-4		
MC401	C-4		
MC501	G-2		
MC601	C-2		
MC602	C-2		
MC603	G-4		
MC604	D-1		
MC701	B-5		

Parts Location

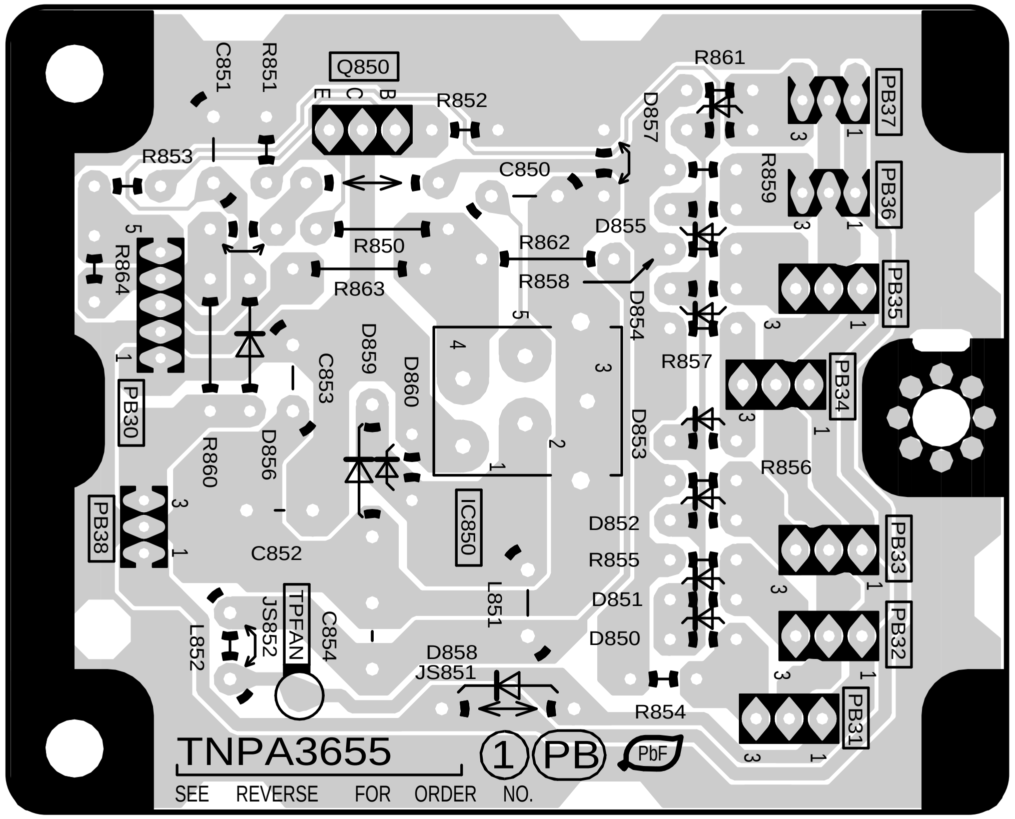
PB-BOARD (FOIL SIDE)			
IC		**TRANSISTOR**	
IC850	C-2	Q850	B-3
		TP	
		TPFAN	B-2

Parts Location

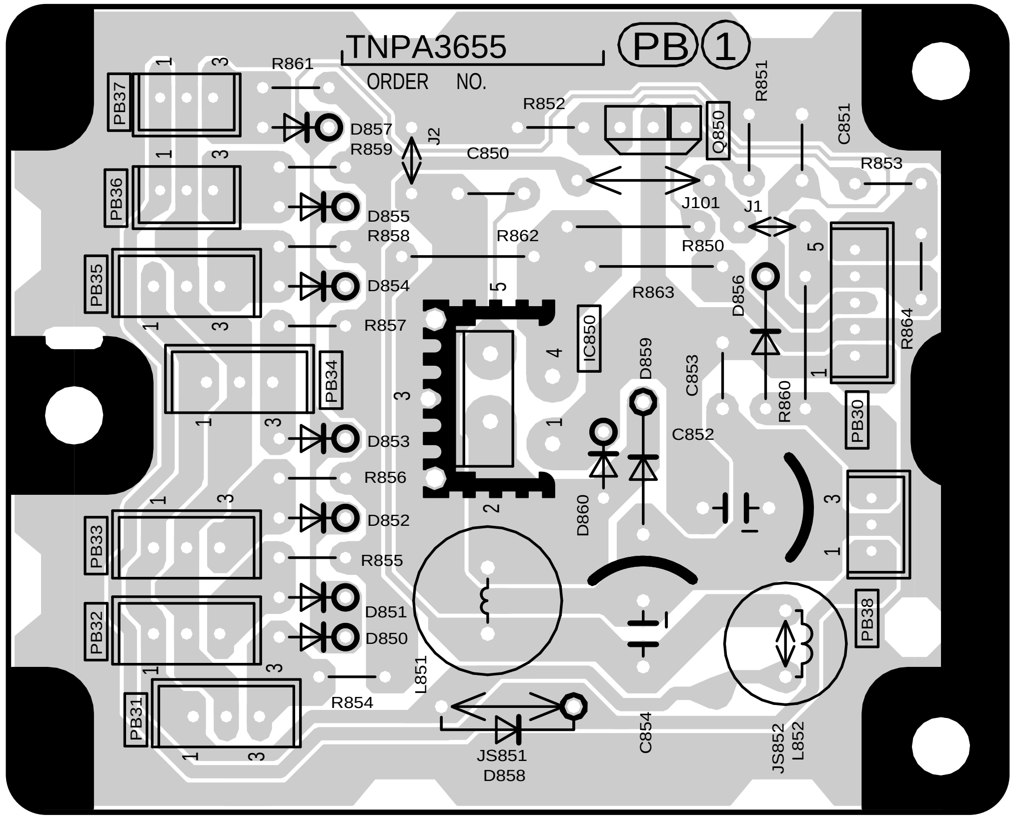
PB-BOARD (COMPONENT SIDE)			
IC		**TRANSISTOR**	
IC850	G-3	Q850	G-3



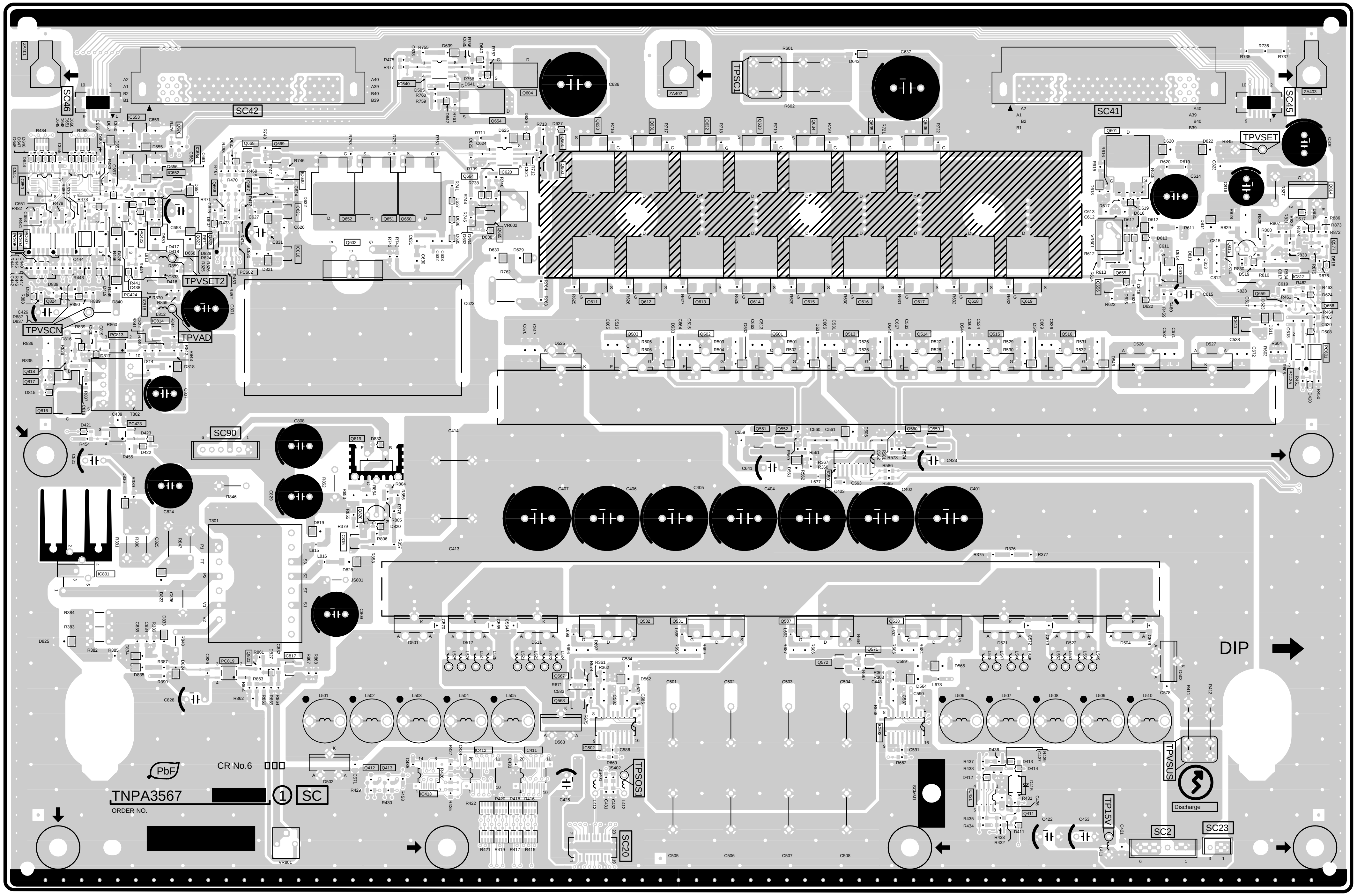
PB-BOARD (FOIL SIDE)
TNPA3655


Q850
E C B
C851
R851
R852
R853
C850
R850
R862
R863
R858
R864
D855
D857
R861
R859
D854
D859
D860
C853
D856
R860
R857
D853
IC850
PB30
PB31
PB32
PB33
PB34
PB35
PB36
PB37
PB38
R856
D852
R855
D851
D850
C852
L851
L852
JS852
TPFAN
C854
D858
JS851
R854
TNPA3655
1 PB
PbF
SEE REVERSE FOR ORDER NO.

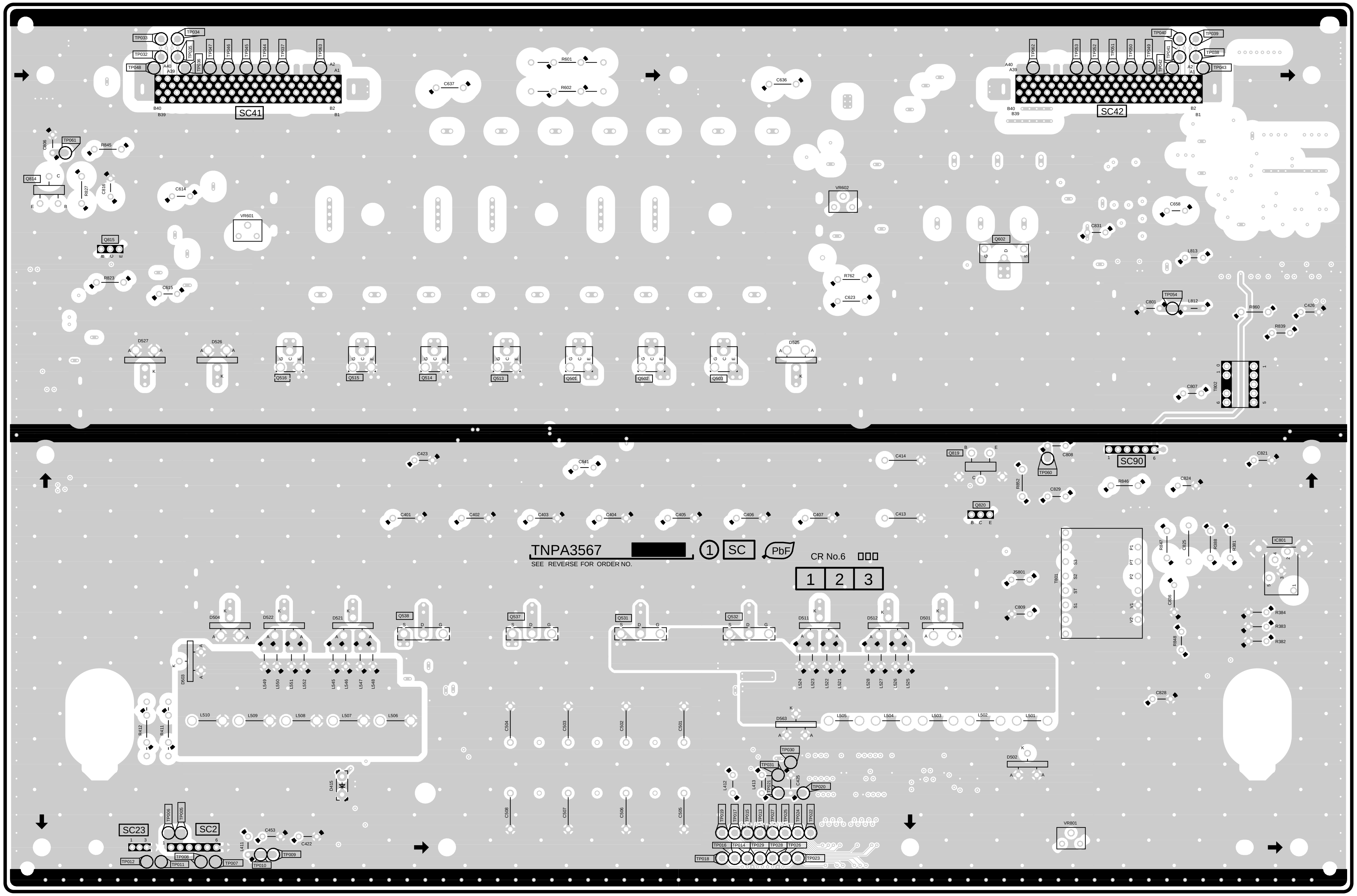
PB-BOARD (COMPONENT SIDE)
TNPA3655


TNPA3655
PB 1
ORDER NO.
R861
D857
R859
J2
C850
R852
Q850
R851
C851
R853
J101
J1
D855
R858
R862
R850
R863
D854
R857
IC850
D856
D859
C853
R860
R864
D853
R856
D852
R855
D851
D850
D860
C852
L851
R854
JS851
D858
C854
JS852
L852
PB30
PB31
PB32
PB33
PB34
PB35
PB36
PB37
PB38

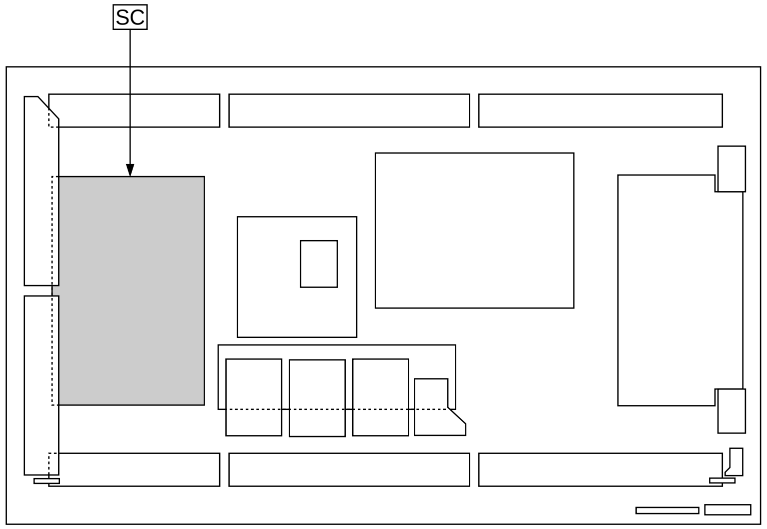
SC-BOARD (COMPONENT SIDE)
TNPA3567


SC46
SC42
TPSC1
SC41
SC45
TPVSET
TPVSET2
TPVSCN
TPVAD
SC90
DIP
TPSOS1
SC20
TPVSUS
Discharge
TP15V
SC2
SC23
SCAM1
T801
CR No.6
TNPA3567
ORDER NO.
① SC
VR801
PbF
A B C D E F G H I
1 2 3 4 5 6

SC-BOARD (FOIL SIDE)
TNPA3567


SC41
SC42
SC90
SC23
SC2
TNPA3567
SEE REVERSE FOR ORDER NO.
① SC
PbF
CR No.6
1 2 3
TP033
TP034
TP032
TP048
TP039
TP040
TP043
R601
R602
C637
C636
VR601
VR602
VR801
Q814
Q815
TP081
R845
R827
C614
C615
R823
D527
D526
Q516
Q515
Q514
Q513
Q501
Q502
Q503
D525
Q602
R762
C623
C658
C831
L813
TP054
C801
L812
R860
C426
R839
C807
T802
C423
C641
C414
Q819
C808
TP060
C821
C829
R846
C824
R862
Q820
C401
C402
C403
C404
C405
C406
C407
C413
IC801
JS801
C809
D504
D522
D521
Q538
Q537
Q531
Q532
D511
D512
D501
D503
L510
L509
L508
L507
L506
L505
L504
L503
L502
L501
D563
D502
TP030
TP031
TP020
C628
R384
R383
R382
C453
C422
TP012
TP011
TP008
TP007
TP009
TP010
TP018
TP023
R412
R411
D415
6
5
4
3
2
1
A
B
C
D
E
F
G
H
I

TH-50PHD8BK/BS/EK/ES
SC-BOARD TNPA3567



Parts Location

SC-BOARD (FOIL SIDE)

IC	
IC6801	H-3

TRANSISTOR	
Q6501	D-4
Q6502	D-4
Q6503	E-4
Q6513	D-4
Q6514	C-4
Q6515	C-4
Q6516	B-4
Q6531	D-2
Q6532	E-2
Q6537	D-2
Q6538	C-2
Q6602	F-4
Q6814	A-5
Q6815	B-4
Q6819	F-3
Q6820	F-3

TP	
TP4038	G-5
TP4039	G-5
TP4043	G-5
TP6005	B-1
TP6006	B-1
TP6007	B-1
TP6008	B-1
TP6009	B-1
TP6010	B-1
TP6011	B-1
TP6012	B-1
TP6013	E-1
TP6014	E-1
TP6015	E-1
TP6016	E-1
TP6017	E-1
TP6018	E-1
TP6019	E-1
TP6020	E-1
TP6021	E-1
TP6022	E-1
TP6023	E-1
TP6024	E-1
TP6025	E-1
TP6026	E-1
TP6027	E-1
TP6028	E-1
TP6029	E-1
TP6030	E-2
TP6031	E-2
TP6032	B-5
TP6033	B-5
TP6034	B-5
TP6035	B-5
TP6036	B-5
TP6037	B-5
TP6040	G-5
TP6041	G-5
TP6042	G-5
TP6044	B-5
TP6045	B-5
TP6046	B-5
TP6047	B-5
TP6048	B-5
TP6049	G-5
TP6050	G-5
TP6051	G-5
TP6052	G-5
TP6053	G-5
TP6054	G-4
TP6060	F-3
TP6061	A-5
TP6062	F-5
TP6063	C-5

Parts Location

SC-BOARD (COMPONENT SIDE)

IC	
IC6411	D-2
IC6412	C-2
IC6413	C-2
IC6421	F-1
IC6501	E-3
IC6502	D-2
IC6603	F-2
IC6610	G-4
IC6611	G-4
IC6620	D-5
IC6640	C-5
IC6650	A-5
IC6651	A-5
IC6652	B-5
IC6653	B-5
IC6654	B-5
IC6801	A-3
IC6812	H-4
IC6814	B-4
IC6815	C-3
IC6817	B-2
IC6818	B-4

TRANSISTOR	
Q6411	F-1
Q6412	C-2
Q6413	C-2
Q6501	E-4
Q6502	E-4
Q6503	D-4
Q6513	E-4
Q6514	F-4
Q6515	F-4
Q6516	F-4
Q6531	E-2
Q6532	D-2
Q6537	E-2
Q6538	F-2
Q6551	E-3
Q6552	E-3
Q6559	F-3
Q6567	D-2
Q6568	D-2
Q6571	E-2
Q6572	E-2
Q6577	H-4
Q6601	G-5
Q6602	C-4
Q6604	D-5
Q6611	D-4
Q6612	D-4
Q6613	E-4
Q6614	E-4
Q6615	E-4
Q6616	E-4
Q6617	F-4
Q6618	F-4
Q6619	F-4
Q6630	D-5
Q6631	D-5
Q6632	E-5
Q6633	E-5
Q6634	E-5
Q6635	E-5
Q6636	F-5
Q6650	C-5
Q6651	C-5
Q6652	C-5
Q6654	C-5
Q6655	G-4
Q6656	G-4
Q6658	H-4
Q6659	H-4
Q6660	D-5
Q6660	F-3
Q6661	D-5
Q6664	C-5
Q6665	D-4
Q6666	B-5
Q6667	B-5
Q6668	B-5
Q6670	B-5
Q6689	B-5
Q6814	H-5
Q6815	G-4
Q6816	A-4
Q6817	A-4
Q6818	A-4
Q6819	C-3
Q6820	C-3
Q6821	B-2
Q6822	B-5
Q6823	B-5
Q6824	A-4

TP	
TP15V	G-1
TPSC1	E-5
TPSOS1	D-2
TPVAD	B-4
TPVSCN	A-4
TPVSET	G-5
TPVSET2	B-4
TPVSUS	G-2